# Chapter 1

# BACKGROUND ON THE ICE AGE NATIONAL SCENIC TRAIL

A mere 15,000 years ago, during the Ice Age, most of North America lay under the grip of colossal ice sheets thousands of feet thick. The effects of the advancing and retreating glaciers can be seen in the headlands of Cape Cod, the Finger Lakes of New York, and the hills of Michigan, but nowhere is the glacier's mark upon the land more impressive and distinctive than in Wisconsin. Indeed, the state has lent its name to the most recent series of glacial advances and retreats—the Wisconsin Glaciation lasting from about 100,000 to 10,000 years ago.

Wisconsin's legacy from the glaciers and meltwater streams of the Ice Age is a landscape of great diversity and beauty. The state contains world-renowned examples of many landforms that are evidence of continental glaciation. These include moraines, eskers, kames, kettles, drumlins, wetlands, and lakes (see Chapter 8, C. Definition of Terms). These many features invite us to explore and enjoy the landscape of Wisconsin.

The purpose of the Ice Age National Scenic Trail (NST) is to preserve some of the finest features of Wisconsin's glacial landscape, as well as other scenic, natural, and cultural resources, while providing opportunities for low impact recreational and educational activities (See Appendix C—Purpose and Significance of Ice Age NST). In addition, the trail connects six of the nine units of the Ice Age National Scientific Reserve and many other Federal, state, county, and local parks. The National Park Service (NPS) administers the trail in close cooperation with the Wisconsin Department of Natural Resources (WDNR), *Ice Age Trail Alliance (IATA), counties, local governments, and other private organizations that are working to help build and maintain the Ice Age NST.

The Ice Age NST is one of only eleven National Scenic Trails—long distance, non-motorized trails that follow major geographic features or pass through scenic areas. It is similar in concept to the Appalachian NST but is also uniquely different because of the landscape through which it passes. The Appalachian NST traverses a mountain range through 14 states whereas the Ice Age NST showcases the glacial landscape of just one state. When completed, the trail will extend over 1,200 miles from Interstate State Park on the St. Croix River in Polk County to Potawatomi State Park in Door County, tracing features left by the last continental glacier that swept over Wisconsin. Statewide, approximately 600 miles of the trail are currently on the ground.

The three primary statewide partners in the Ice Age NST—the NPS, WDNR, and IATA—are establishing the trail guided by the following Vision Statement:

*In April 2009, the Ice Age Park and Trail Foundation (IAPTF) officially changed its name to the Ice Age Trail Alliance (IATA). The organization's prior name was used throughout the planning process in this county, including all correspondence sent to landowners, elected officials, and government agencies.

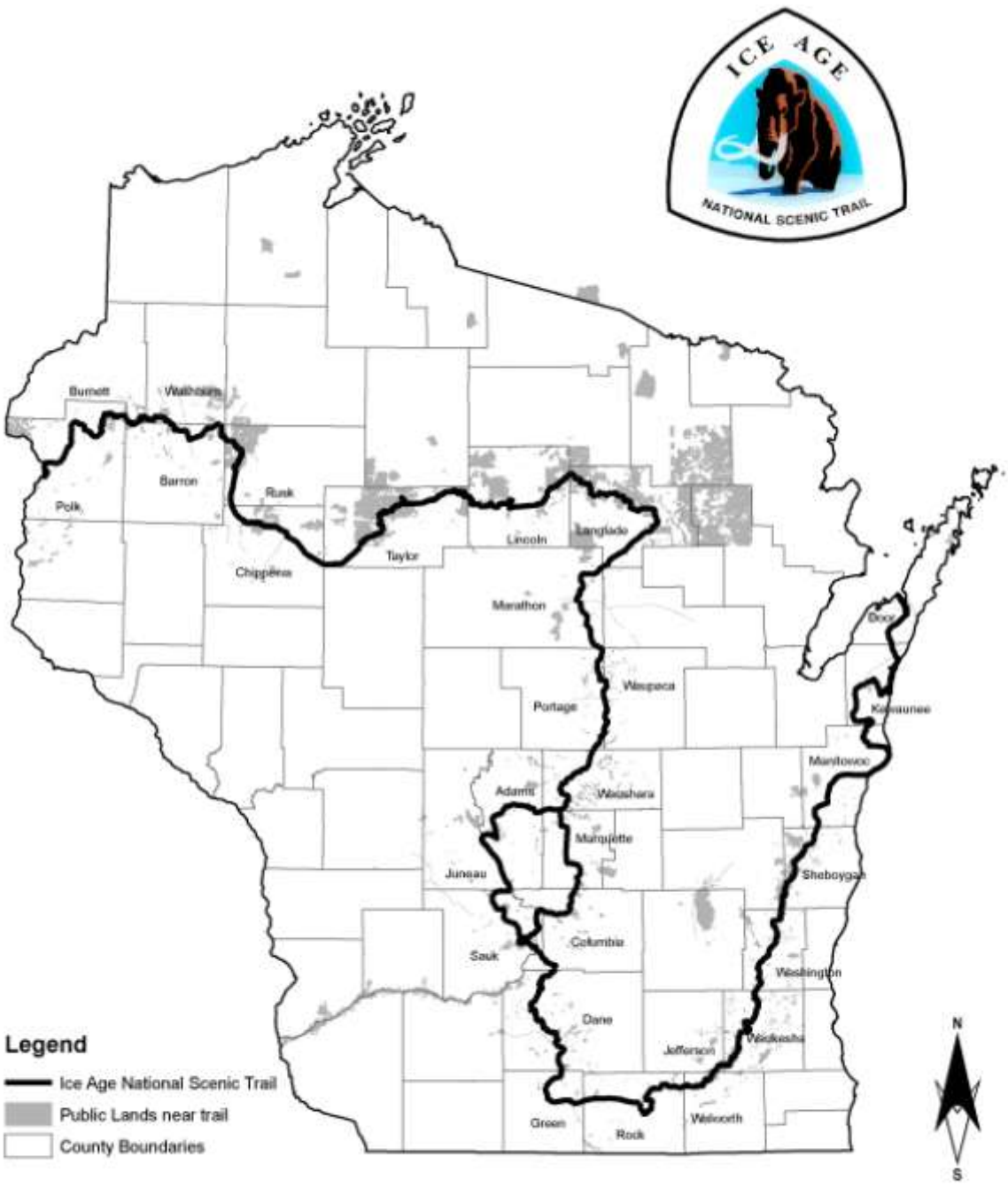
The Ice Age NST is a continuous footpath through diverse landscapes that:

- Provides superlative outdoor recreation experiences;
- Preserves and commemorates world renowned geological features formed during the Wisconsinan Glaciation;
- Provides a natural corridor that protects habitat and enables the movement of wildlife;
- Serves as a lifelong educational resource;
- Provides quiet places for people to form and nurture a spiritual connection with the landscape;
- Promotes the health and vigor of users of all ages and abilities, and
- Links the history and diverse human cultures of the land that we call Wisconsin.

The NPS is responsible for overall administration of the Ice Age NST. In 1983, the NPS completed the *Comprehensive Plan for Management and Use of the Ice Age National Scenic Trail*. The plan provides overall guidance for development and management of the trail, which is intended to be a partnership venture, accomplished through many cooperating Federal, State, and local agencies and private trail organizations. The primary cooperators are the WDNR and the IATA. A Memorandum of Understanding (MOU) between these parties outlines their respective roles and responsibilities for the acquisition, development, operation, maintenance, and protection of the trail. A copy of this MOU can be found in Appendix D.

The WDNR is the state agency responsible for implementing state and federal laws that protect and enhance Wisconsin natural resources—its air, land, water, wildlife, fish and plants. More than 225 miles of trail are located on WDNR properties. The WDNR assists in planning and implementing the Ice Age NST, provides grants to the IATA and others for acquisition and maintenance of the trail, and acquires and accepts gifts of land for the trail.

The IATA currently known as the Ice Age Trail Alliance was founded in 1958 by Wisconsin citizens who envisioned a thousand-mile trail that followed the terminal moraine and other Ice Age formations across the state. Today, the IATA is a member-based non-profit organization that continues to work to develop the Ice Age Trail into one of the premier hiking trails in the United States. They also maintain the trail and its associated lands, promote and raise money to support the trail effort, and assist in planning and acquiring lands for the trail.


ICE AGE
NATIONAL SCENIC TRAIL
Burnett
Washburn
Barron
Polk
Rusk
Chippewa
Taylor
Lincoln
Langlade
Marathon
Portage
Waupaca
Adams
Marquette
Juneau
Columbia
Sauk
Dane
Jefferson
Green
Rock
Walworth
Waukesha
Washington
Sheboygan
Manitowoc
Kewaunee
Door
Legend
Ice Age National Scenic Trail
Public Lands near trail
County Boundaries
N
S

# Chapter 2

# PURPOSE AND NEED FOR ACTION

When Congress amended the National Trails System Act in 1980 to authorize establishment of the Ice Age Trail as a NST, it designated only a general route for the trail.

> "*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled*, That the National Trails System Act (82 Stat. 919; 16 U.S.C. 1241), as amended, is further amended as follows:
> (a) Section 5 (a) is amended by adding the following new paragraph at the end thereof:
> (10) The Ice Age National Scenic Trail, a trail of approximately one thousand miles, extending from Door County, Wisconsin, to Interstate Park in Saint Croix County [should have read "Polk County"], Wisconsin, generally following the route described in "On the Trail of the Ice Age –A Hiker's and Biker's Guide to Wisconsin's Ice Age National Scientific Reserve and Trail", by Henry S. Reuss, Member of Congress, dated 1980."

This general route identified for the trail across the state was then incorporated into the 1983 *Comprehensive Plan for Management and Use of the Ice Age National Scenic Trail (Comprehensive Plan*). The maps in the plan frequently identify roads as "Connecting Road Segment to NST" where there was no actual "trail" in existence and no specific idea where an off-road trail could be established in the future. This alignment was displayed on the maps even though it was known that these road routes could not serve as the route of the Ice Age NST over the long-term. The *Comprehensive Plan* states that the Ice Age NST "should be a continuous overland (off-road) trail. The roads identified on the maps were "place holders" for a future alignment that would need to be determined through a detailed analysis. This planning work was identified as a priority action on page 50 of the *Comprehensive Plan*:

"1. Detailed planning for the location and construction of new trail segments needed to make the Ice Age NST a continuous off-road trail as identified in this plan should begin as soon as possible as a cooperative effort between the Ice Age Trail Council, Wisconsin Department of Natural Resources, and the National Park Service."

The purpose of the Corridor Planning Process is to identify and evaluate potential corridors where an overland route for the Ice Age NST could be established in Marathon County. A desirable location for the trail would meet the following objectives.

- Traverse a variety of glacial features that are located in a visually pleasing corridor.
- Provide for a diverse user experience by incorporating a variety of plant communities, terrain, open and enclosed spaces (ex. Forests, meadows).
- Provide vistas to broader landscapes for scenic and interpretive purposes.
- Link and protect significant geologic, biologic, and archeologic sites
- Link other significant natural resource areas.
- Connect or provide linkages to communities for user support purposes.

- If possible, use publicly owned land for trail development and support facilities.

These alternatives must also occur within defined endpoints. In Marathon County these endpoints are located northeast in the town of Harrison at the Marathon-Langlade County line, and on the county's southeastern border in the towns of Franzen and Alban, at the Marathon-Portage County line where a Corridor of Opportunity for Portage County was approved in the late 1990s.

The Green Bay Lobe's terminal Hancock Moraine traverses eastern Marathon County. The original idea for the trail was to follow the moraine through Marathon County using state and county public lands as anchor points. As indicated by the *Comprehensive Plan,* the trail was to wind from Langlade County moving southwest to Dells of the Eau Claire County Park, south to Ringle where it would cross State Highway 29, and then follow the terminal moraine through the Kronwetter and Leather Camp County Forest Units, and Dewey Marsh State Wildlife Area, just north of Stevens Point in Portage County. During the 1970s, a few volunteers built segments of the Ice Age NST through the Dells of the Eau Claire County Park, town of Ringle and Kronwetter Unit. While the trail through the Dells of the Eau Claire County and the town of Ringle was a success, the segment through the Kronwetter Unit proved to be too wet and difficult to maintain, and was subsequently abandoned in the late 1980s. Dewey Marsh, where the trail was proposed but not built, also encompasses extensive wetlands. Because of the expansive wetlands along this portion of the terminal moraine, it was decided that another route would need to be identified.

To complete the trail countywide, a plan is needed that will provide guidance on where future segments should be established. Today, Marathon County has a dedicated, self-sustaining, and enthusiastic group of volunteers. Such a plan will help volunteers and other partners focus their efforts.

Locally, there is also support for the Ice Age NST. The Marathon County Parks Department has been enthusiastic about the development of the Ice Age NST for sometime. Its incorporation into the *Marathon County Comprehensive Outdoor Recreation Plan* dates back to 1977, and has been included in updates prepared through 2013. While the Marathon County Parks Department may actively assist with the development of the trail and intends to actively promote the trail in its literature, its present stance is that current funding levels prevent it from being involved with day-to-day trail maintenance responsibilities.

(Insert  Map 2-1with Marathon County highlighted)

(Insert Map 2-2, Marathon County map with public lands, 1983 existing trail, and planning end-points: identify Little Wolf River and Langlade County-)

# Chapter 3
# ISSUES AND CONCERNS

During the internal and external scoping process for this planning process, a number of issues were identified. Members of the general public, local units of government, state agencies, federal agencies, and other interested public gave their input on the plan at planning meetings, agency meetings, town, and county board meetings, open house meetings and through letters and comment sheets. These issues are summarized below.

**Why this location for the Ice Age NST?**
What factors determine the location for the Ice Age NST? During the Pleistocene epoch, the glacier advanced and receded across Marathon County many times creating the landscape that we see today. In its wake, it also left numerous geologic features such as the terminal and recessional moraines, kettle ponds, glacial drainageways, and outwash plains. The purpose of the Ice Age NST is to preserve some of the finest features left by the last glacial advance, as well as other scenic, natural, and cultural resources, while providing opportunities for an outstanding hiking experience and educational activities. For further details on the purpose and goals for the trail, the planning process, and Marathon County's geology see: Chapter 1—Background on the Ice Age National Scenic Trail; Chapter 4—Implementation of the Corridor Planning Process; Chapter 6—Corridor's Affected Environment: Geology; and Appendix C—NPS Purpose and Significance Statement of the Ice Age National Scenic Trail.

**Impacts to existing public lands and their use.**
Some individuals expressed concerns regarding impacts to the use of the existing public state fishery and wildlife areas for the trail. Any segment of trail that is placed on public lands has the potential to cause some level of impact to the resources and use of those properties. However, in the 2005-2010 SCORP, research findings suggest that hiking and hunting can be compatible given proper planning and managed user interactions. These issues are discussed in Chapter 6—Corridor's Affected Environment: Water Resources, Recreation Resources, and Public Health.

**Impacts on natural resources by trail construction and use.**
People expressed concern about the impact on natural resources that could result from the construction and use of new trail. The Ice Age NST has A Handbook for Trail Design, Construction, and Maintenance that guides its development. If the standards are followed, the physical impacts would occur primarily when the trail is constructed and would be minor and temporary. In sensitive environments such as wetlands, the trail either would be routed around them or would go through a permitting process to construct bridges or boardwalks through them. These issues are discussed in Chapter 7—Corridor Impact Analysis: Geology, Soils, Water Resources, Air Quality, Ecosystem, Invasive Species, Wildlife, Fisheries, and Threatened and Endangered Species.

**Preservation of the glacial landscape**
Some individuals were concerned about preserving the resources that are important to the trail's geologic story and the scenic experience of the hiker. The glacier affected virtually the entire landscape of eastern Marathon County. Through the planning process, the Core Team identified

the preferred alternative corridor that captured, what we believe to be, the best examples of geologic features left by the glacier. Working with willing landowners, we will attempt to protect some portion of these resources for the trail. For further details see Chapter 7—Corridor Impact Analysis: Visual Resources; and Land Acquisition and Trail Development.

**Impacts on cultural resources by trail use and construction of new trail.**
An impact on cultural resources that may occur due to new trail construction was considered by some people to be an issue. As stated in 36 CFR Part 800—PROTECTION OF HISTORIC PROPERTIES, Subpart A—Purposes and Participants, 800.1 Purposes: "Section 106 of the National Historic Preservation Act requires Federal agencies to take into account the impacts of their undertakings on historic properties and afford the Council a reasonable opportunity to comment on such undertakings…." The National Park Service has a Memorandum of Understanding with the Wisconsin State Historic Preservation Office that defines methods to identify and avoid impacts to cultural resources when designing and building the Ice Age NST. For further details see Chapter 7—Impacts to Cultural Resources, and Appendix E—Memorandum of Understanding between the State Historical Society of Wisconsin and the National Park Service.

**Impacts on private land and private ownership.**
Some people expressed concerns regarding the completion of the trail through the county and its impact to private land. By congressional authorization, the Ice Age NST is a continuous footpath that spans the State of Wisconsin for approximately 1,200 miles and in doing so has the potential of crossing both public and private lands. Private interests may be affected by the trail in a variety of ways such as purchase of lands, community economic development, or change of land use from agriculture to conservation. These issues are discussed in Chapter 7—Corridor Impact Analysis: Communities and Businesses, Land Use and Land Ownership, Land Acquisition and Trail Development, and Tax Base and Fiscal Impacts.

**Impacts related to Health, Safety, and Community Resources**
An individual expressed concern about the use of public roads as a temporary route for the trail and the potential impact to community resources in the event that an indigent hiker was injured. While the Ice Age NST is meant to be a continuous overland (off-road) trail, this does not preclude the use of short sections of lightly used town or county roads (usually less than one mile) or bridges when necessary in order to cross-rivers, lakes, interstate highways, dams, etc. This issue was addressed in a follow-up letter, which was sent to landowners in May 2005. A copy of the correspondence is included in Appendix F. Also see Chapter 7—Corridor Impact Analysis—D. Communities and Businesses. Another individual was concerned about routing the trail near large, active agricultural fields as are found throughout the southern half of the proposed corridor. This individual recommended a buffer of 100 to 150-feet to ensure a hiker's safety. See Chapter 7—Corridor Impact Analysis: Land Use and Land Ownership.

# Chapter 4

# IMPLEMENTATION OF THE CORRIDOR PLANNING PROCESS IN MARATHON COUNTY

When Congress authorized the Ice Age NST in 1980, it directed that "[o]verall administration of the trail shall be the responsibility of the Secretary of the Interior.…" The Secretary delegated this administrative responsibility to the National Park Service.

The purpose of preparing this Corridor Plan and Environmental Assessment is to carry out the Secretary's responsibility in section 7(a)(2) of the National Trails System Act [16 U.S.C. 1246(a)(2)] to "select the rights of way for [the Ice Age] national scenic [Trail] …" The act goes on to specify: "That in selecting the rights of way full consideration shall be given to minimizing the adverse impacts upon the adjacent landowner or user and his operation. Development and management of each segment of the National Trails System shall be designed to harmonize with and complement any established multiple-use plans for the specific area in order to ensure continued maximum benefits from the land.… In selecting rights-of-way for trail purposes, the Secretary shall obtain the advice and assistance of the States, local governments, private organizations, and landowners and land users concerned."

Selection of the route for the trail is needed to facilitate the first and most critical aspect of establishing the trail—securing lands on which the trail may be constructed. This work requires contacting individual landowners either to propose acquisition of some or all of their land or to ask permission for the trail to cross their land. To determine which landowners should be contacted for this purpose, a refinement of the general route designated by Congress is needed. It is the purpose of this plan to determine that more specific route by establishing a "Corridor of Opportunity" within which lands may be acquired for the trail, and to do so through an open process involving affected agencies and landowners as well as trail users and the general public.

Therefore, the objectives of the Corridor Planning Process are to: define a boundary within which Federal and State monies may be used to acquire lands for the trail, design possible route locations for the trail within those boundaries, and fulfill Federal and State environmental requirements by taking the proposed plan through a public review and complying with the Endangered Species Act and Historic Preservation Act. Of the 30 counties the Ice Age NST passes through, Marathon County is the eleventh county to go through this process.

The Corridor Planning Process for Marathon County began with a meeting of representatives from the NPS, WDNR, IATA staff, and volunteers, Marathon County, and the North Central Wisconsin Regional Planning Commission. This group, better known as the "Core Team" was formed to oversee the planning process. Their task is to provide input to the NPS on conceptual ideas for a corridor and possible route options for the Ice Age Trail, and shepherd these ideas through the public review process.

The *Comprehensive Plan* provides general guidance on where to locate the trail. It states that the trail shall follow the terminal moraine or glacial features left by the last glacial advance. To

determine a location for the trail, three important elements are identified. They are the Corridor of Opportunity, Trailway, and Trail. (Also, see Definitions of Terms: *Corridor of Opportunity*, *Trailway* and *Trail* in Chapter 8.)

The Corridor of Opportunity is the largest of these elements. It is defined by locating clusters of outstanding, interpretable glacial and biological features, public lands, as well as areas of continuous scenic beauty. After these features are mapped, their patterns typically reveal a very general, natural alignment for the trail. The width of the corridor is usually on a landscape scale of 1-5 miles, although in the case of large significant features it can be wider. The corridor includes desirable features for the user to walk or gaze upon, or to be preserved. Another reason the corridor is wide is to allow flexibility in working with landowners since participation in the project is voluntary.

The Corridor of Opportunity is also the area within which WDNR may acquire lands for the Trailway, provide Stewardship grants to others to acquire lands for the trail, and accept lands for permanent dedication. It also defines the area within which federal involvement in land protection and acquisition for the Ice Age NST may occur. Lastly, the corridor provides focus and direction to the trail's land protection program and partnerships.

Two other elements, the Trailway and Trail, fit within the corridor. The Trailway is the width or area of land that is managed for the purpose of the Ice Age NST. It includes the Trail and surrounding lands that are owned, leased, or managed as part of the Ice Age NST. These management purposes may include but are not limited to creating a buffer for the trail to separate it from adjoining land ownerships and uses, and protecting scenic or significant geologic features or plant communities.

The Trail is the actual usable tread and surrounding space that is maintained for the purpose of passage along the trail route. The trail width may vary from 18 inches to 72 inches depending on the Recreation Opportunity Spectrum (ROS) classification—urban, rural/roaded natural, or semi-primitive. (See Appendix B—Trail Development and Management Standards.) Most of the Ice Age NST in Marathon County is located in a rural/roaded natural setting and will average 24-30 inches in width. Through the Village of Hatley, the trail will follow existing sidewalks. Again, the location of the Trailway and Trail are dependent on landowners who are willing to be part of the Ice Age NST project.

# Chapter 5

# DESCRIPTION OF ALTERNATIVES

The NPS and WDNR propose to establish a planned and mapped Corridor of Opportunity within which lands for the trail may be acquired, developed, managed, and protected for the Marathon County portion of the Ice Age NST.

Descriptions of alternative strategies for establishing the Ice Age NST are presented below. Alternative 1 is the No Action alternative. Alternative 2, the Preferred alternative, is a corridor that is based on the 16.5 miles of existing trail segments developed by the Ice Age Trail Alliance over the last thirty years. These existing trail segments presently provide a recreational corridor and resource protection that could be used as a foundation to complete the trail and create greater user satisfaction through additional site enhancements. Also, one other corridor was "considered but eliminated."

The design of the proposed Ice Age NST corridor is based on a number of factors. These factors are: general adherence to glacial features left by the Wisconsinan advance, linkage to public lands for support facilities and interpretive opportunities, provision for a varied and scenic hiking experience, preservation of significant natural features, and reasonable directness of route. The goal of establishing the Ice Age NST would best be met by Federal, State and private partners having specifically delineated, authorized areas in which to work.

## A. ALTERNATIVE 1 – NO ACTION ALTERNATIVE

Under the No Action alternative, no Corridor of Opportunity to more specifically identify the route of the Ice Age NST would be established. The Secretary of the Interior's responsibility under the National Trails System Act to select a specific route for the trail would not be carried out. The various Federal, state, local and private partners working to establish the trail would continue to be guided only by the general route referenced in the National Trails System Act and *Comprehensive Plan*.

Any activities by partners to acquire lands for the trail would be done without a professional analysis of the best route for the trail or the environmental impacts of trail construction. The No Action alternative would constrain the involvement of governmental partners in the project since their involvement requires environmental analysis. It would also not provide the opportunity for local units of government and private citizens to be involved in determining the best route for the trail. Without the inclusion of local government and private citizens in the planning process, the Ice Age NST would not be identified in local planning documents, a situation that could result in lost opportunities to build the trail. Trail development, management, and operation under this alternative would continue as in the past. The WDNR would continue to provide trail segments on lands that it manages. Trail built on private land by permission only would continue to be vulnerable to loss by increasing development pressures. This would result in much slower and haphazard establishment of the trail.

## B ALTERNATIVE 2 – PREFERRED (PROPOSED CORRIDOR)

Under this proposal, a Corridor of Opportunity that is approximately 3-5 miles in width extending from north to south through Marathon County has been identified and would receive State and Federal approval. Within this corridor, a trailway that is approximately 200—1000 feet or more in width would be acquired for Ice Age NST purposes. A wider trailway may be necessary to incorporate significant features of a particular area. The corridor is intentionally designed to be wide enough to allow flexibility in working with cooperating landowners to site the trail since all participation in the project is voluntary. The established corridor will define areas for purchase using private, state, or federal funds and will serve as advisory information for town and county land use planning. A map showing the proposed Corridor of Opportunity is located at the end of this section.

This alternative fulfills the purpose and need, and the intent of Congress and the Wisconsin State Legislature. This alternative is based on an evaluation of the geological and biological features within Marathon County, as well as the fieldwork of representatives of the Core Team. Beginning north, the proposed corridor moves southwest and then south from Langlade County following the Hancock moraine through the townships of Harrison, Easton, Plover, and Ringle. This moraine, with its steep sloping front and hummocky topography, was deposited approximately 25,000 - 16,000 years ago and represents the furthest extent of the glacier's advance. Erratics, which are large boulders left by the glacier, are common along its surface. As the corridor extends south, the Hancock Moraine angles to the west and is replaced within the proposed corridor by the Almond Moraine through the townships of Reid and Elderon. This moraine was deposited 13-14,000 years ago when the glacier retreated from the Hancock moraine. It also exhibits a steeply sloping forward edge, with several tunnel channels, kettle ponds, and ice-walled lake plains along its width. Just north of Mission Lake County Park, the corridor turns southeast to include portions of the Elderon moraine in the townships of Bevent and Franzen in Marathon County, and the town of Alban in Portage County where it connects to the previously approved Portage County Ice Age NST Corridor. The Elderon moraines were formed subsequent to the Almond moraine and consist of a series of narrow, discontinuous ridges. The corridor has the potential to link three state fisheries areas, a state natural area, two county parks, several town parks, and the Mountain Bay State Trail. It also passes through or near the communities of Hatley, Pike Lake, Galloway, and Three Lakes. Collectively, these areas provide support facilities such as trailheads, parking, water, lodging, and phones. Among the resource features found within the corridor are extensive woodlands, conifer swamps, pristine trout streams, and ground flora characteristics of both northern and southern Wisconsin. Well-placed overlooks could potentially provide scenic views of the glacial landscape.

The following is a general description of the corridor starting at its northern end in the town of Harrison. The corridor boundaries tend to follow roads, section lines, and property lines. Possible trail route options are described and analyzed in Appendix A of this document.

## Town of Harrison

The proposed corridor in the town of Harrison varies in width from 2-3 miles. Beginning at the Langlade/Marathon County line, it is located in the southeast corner of the town encompassing Sections 24-26 and 34-36. The northern edge of the corridor generally follows the Eau Claire River in a southwesterly direction. State Highway 52 runs along the south side of the township and proposed corridor. One of the highest elevations in the corridor is found here near the former site of the Aniwa fire tower. There are no existing segments of the Ice Age NST in the town of Harrison.

The major glacial features found within the township include the Hancock Terminal Moraine and the Almond Moraine. These moraines are ridges formed by unsorted gravel, sand, and boulders carried by the glacier and deposited at the outer edge, or front, of the glacier.

The Eau Claire River and the Plover River both flow diagonally through the corridor, roughly paralleling each other, from the northeast to the southwest, as do the moraines, with the Plover River flowing between them. The Eau Claire River flows along the west edge of the Hancock Moraine. Both rivers offer outstanding recreational opportunities. The area is scenic and wooded with little existing development. The forested areas consist primarily of northern hardwoods and aspen, with smaller amounts of oak and lowland hardwoods. There are small areas of conifer swamp found near the headwaters of streams, and associated with lakes in kettle depressions on the moraines.

Public lands that the Ice Age NST may utilize within the proposed corridor are limited to the northernmost 200 acres of the Plover River State Fishery Area (SFA), a predominantly wet property consisting of a nearly pure cedar stand. A small gravel parking lot is located within the SFA north of State Highway 52. The Ice Age NST may need to cross Nolan and Bear Lake roads, both relatively low volume local roads in addition to State Highway 52.

## Towns of Easton and Plover

South of State Highway 52, the proposed corridor continues to move in a southwesterly to westerly direction into the towns of Easton and Plover before reaching Dells of Eau Claire County Park where it turns south. The corridor here is 2 miles in width and houses are few. Depending on where the trail is located, it will need to cross County Trunk Y and Sportsman Road to reach the park.

While the major geologic features of this alternative are portions of both the Hancock and Almond Moraines, the proposed Ice Age NST corridor extends west of them and North Pole Road to incorporate pre-glacial geologic features found within the Dells of the Eau Claire County Park. Here Precambrian rhyolite schist, a very hard rock, was formed millions of years ago through metamorphosis and was later tilted to a nearly vertical position. Strong, swirling water currents combined with the grinding action of sand and gravel flowing over the rhyolite schist produced numerous potholes. Today, the Eau Claire River flows and cascades with a series of waterfalls over this hard rock through a picturesque gorge.

Within the county park, the gorge contains a northern mesic forest of hemlock, sugar maple, yellow birch, and mountain maple, the historic vegetation of the area. Canada yew is abundant in dense patches and the spring flora is rich. Bedrock outcroppings are common. In 1973, because of the park's significant natural and geologic features, forty acres of it was designated a State Natural Area (SNA). Outside of the park, land use consists mostly of forested areas interspersed with an occasional small family farm. A cluster of small quarry pits and quarries are located in Sections 17-19 in the town of Plover.

There is an existing 2.3-mile segment of the Ice Age NST in the county park. This trail segment, upgraded in 2005, follows the Eau Claire River south to an existing trailhead located on County Trunk Z. There are two other existing segments located within the proposed corridor. There is 1.06 miles of established trail located south of County Trunk Z beginning at the intersection of Fire Road and Partridge Lane, where it heads south. A cluster of small kettles is located here immediately east of Fire Lane. They were formed by large, buried blocks of ice, which melted and collapsed leaving surface depressions. These kettles may be dry or contain wetlands or small lakes. Another 2.0-mile long segment is located between Sportsmans Drive and SH 52 on Plover River State Fishery lands.

Public lands within the proposed corridor include the Dells of the Eau Claire County Park (208-acre), Plover River SFA (763-acre), and a parcel owned by the Marathon County Forestry Department in the town of Easton (80-acres). In addition to public lands, the IATA owns 14-acres south of the county park. Here, existing Ice Age Trail winds along the Eau Claire River. Access to the existing trail in these townships can be found at the Plover River SFA as well as the county park. The county park also provides additional parking, water, restrooms and camping.

The Ice Age NST may require several road crossings through this corridor segment. Their number and location is dependent upon where the trail will be developed. Local roads which may need to be crossed include Polar Road, Sportsman Road, and County Roads Y, Z, and N.

## Towns of Ringle and Norrie

Crossing County Trunk N, the proposed Corridor of Opportunity continues south through the towns of Ringle and Norrie following the terminal moraine. The current land cover is a mix of wooded uplands, wetlands, and agriculture. The proposed corridor is 3 miles wide with its western edge defined by Forrestville and Elm Roads, and its eastern edge by County Trunk Y. The corridor expands slightly near Hatley to include on its west side the Marathon County Landfill and Mountain Bay State Recreation Trail, and on its east side, the Almond Recessional Moraine. A large tunnel channel that is currently occupied by State Highway 29 adjoins Hatley's south side. Major traffic arteries are State Highway 29, which bisects the corridor in an east-west fashion, and County Trunk Y, which winds north south through its center. These roads play a major role in affecting the location of potential route alternatives.

Significant portions of the Ice Age NST have already been completed through these townships. Within the proposed corridor, beginning at County Trunk N and moving south are 6.29 miles of

existing trail. This segment is constructed on an outstanding example of the Hancock Moraine. This portion of the moraine is covered by woodlands, which have historically been used as forest crops. The WDNR, Kretz Lumber, Marathon County, and a private landowner own lands along this segment. Local volunteers for more than 30 years have maintained this trail. During this time, Eagle Scouts have constructed a number of benches and boardwalks along it length. Aside from the moraine, other geologic features found within this area are kettles and several kames including the distinctive Klaver Kame, which was named after an early settler from the area. This existing Ice Age NST segment crosses Mole Brook and Poplar Roads, as well as County Trunk Y.

At the south end of this segment, the Ice Age NST meanders through the Marathon County Landfill site and then winds onto the Mountain Bay State Recreation Trail. The Mountain Bay State Recreation Trail is a multi-use rail-trail just north of and parallel to State Highway 29. A short, approximately 1.6-mile section of the Mountain Bay Trail, between the Marathon County Landfill and the Village of Hatley, has been certified as part of the Ice Age NST. This section of the rail-trail passes through the large, well-defined tunnel channel and provides for an excellent transition between the Hancock and Almond Moraines.

The Village of Hatley is located at the junction of State Highway 29 and County Trunk Y. The Plover River flows along its west side. Recent transportation improvements here include a new County Trunk Y overpass, which provides a safe crossing over State Highway 29 for both vehicles and pedestrians. Through the Village of Hatley, the trail follows sidewalks. Hiker's support services are available here such as food, phones, water, and restrooms. A trailhead with a kiosk and parking is found adjacent to the Mountain Bay State Recreation Trail at the new Hatley Community Center.

The proposed corridor continues south of Hatley following a portion of the Almond Moraine. Found on this recessional moraine are numerous kettle ponds and ice-walled lake plains. A particularly good example of an ice-walled lake plain can be found in Section 31 of the town of Norrie, just west of Bass Lake. Land use within this area is predominately agriculture with scattered commercial and residential development. Future development is highly probable because of its proximity to Wausau and the State Highway 29 development corridor. Depending on where the trail is located, the route may cross Hilltop Road, Townline Road, and/or County Road Y.

Existing public lands within the corridor where future Ice Age Trail is proposed to be built include the County Landfill (526-acre) and Plover River SFA (193 acres).

## Towns of Reid and Elderon

The proposed Ice Age NST Corridor of Opportunity continues south into the towns of Reid and Elderon, and extends from Town Line Road to State Highway 153. Currently, no Ice Age NST exists within these townships. Here land cover is a mixture of agricultural crops and timber, with timbered areas being limited to those places too wet or steep for agricultural use. Several small, scattered residential developments are clustered along County Trunk Y, which runs north-south through the proposed corridor. Depending upon the route of the Ice Age NST, several relatively

low-volume local roads may need to be crossed including; Tops, Bridge, Esker, and Plover River, Pike Lake and Mission Lake Roads.

Within this portion of the proposed corridor, the central feature is the Almond Moraine. The Plover River flows between the Hancock and Almond Moraines, entering the corridor in the north and exiting it in the southwest. Depending on where the trail is placed, hikers will find excellent examples of ice walled lake plains here. They are found in Sections 5, 6, and 31, in the town of Elderon; and a very large cluster dominates Sections 13, 14, 23 and 24, and 36, in the town of Reid. As the glacier receded and drained away, it left numerous wetlands behind in these two townships. Care will need to be taken when placing the trail to avoid the large wet areas. In the southeast corner of the corridor, the Elderon Moraine, which received its name from the town, makes its first appearance (Section 32, town of Elderon).

A number of kettle lakes are found along the top of the Almond Moraine such as Bass Lake, Lost Lake, Rice Lake, Pike Lake, and Mission Lake. The level of development around each lake varies. Pike Lake is the largest at approximately 205 acres. It is the most developed with limited services available at its northern end. Mission Lake is the centerpiece of a 113.5-acre County Park where restrooms and water are available. This is a popular park for swimming, boating, and picnicking.

## Towns of Bevent and Franzen

In the towns of Bevent and Franzen, the proposed corridor shifts to the southeast terminating at the Marathon/Portage County line. It varies in width from 3-5 miles to allow for a variety of options when locating the trail. State Highways 153 and 49, and County Trunks I and C cross the corridor and need to be considered when identifying potential routes. Depending on the route, the Ice Age NST may encounter a number of other low-volume local roads through these towns. Land cover is primarily agricultural crops, with scattered timbered areas. The sandy soil is ideal for growing potatoes. There are also a number of small dairy operations in the area. There are currently no existing Ice Age NST segments within these townships.

As the proposed corridor crosses State Highway 153 and shifts southeast, it leaves a landscape dominated by the Almond Moraine and moves onto the Elderon Moraine, a recessional moraine deposited 13-14,000 years ago. The Elderon Moraine, unlike the Hancock and Almond Moraines, was formed by stagnant ice. Because of this, the Elderon Moraine is not a well-defined single ridge, but a series of many shorter ridges with numerous gaps and breaks. Trail users would find the topography scenic and undulating. Several picturesque creeks, whose headwaters begin on or at the base of the Almond Moraine, flow through the many interrupted sections of the Elderon Moraine to join the Little Wolf River. Like the Towns of Reid and Elderon, wetlands or wet areas will need to be avoided when placing the trail.

Moving southeast in the town of Franzen is the Village of Galloway on State Highway 49. The Village was named after an early lumber operation, Morre's and Galloway's lumber camp. The first settlers in the area were loggers and lumbermen from Scandinavia, followed by Polish farmers. Here the proposed corridor is quite wide to allow the possible routing of the Ice Age

NST either to the east where it would need to cross the Little Wolf River, or west of Galloway, toward Tree Lake in Portage County. Limited services are available in Galloway for hikers.

Two kettle lakes are found within this portion of the proposed corridor. Stenson Lake, is located immediately west of Galloway in Sections 22 and 27. This lake has residential development on its northern and western shores. An abandoned RR grade, which originates in Galloway, runs along the eastern shore of Stenson Lake and continues southwest. This former Chicago and Northwestern RR grade is still evident for approximately 1.2 miles through both croplands and wetlands. It may provide an option for a spur trail into Galloway. Another kettle pond, Moss Lake lies in Section 34 of the town of Franzen and is currently undeveloped.

## Town of Alban (Portage County)

In order to provide additional, safe options for routing the trail into Marathon County from Portage County, an expansion to the west of Portage County's approved Ice Age NST corridor is being proposed. The current Ice Age NST Corridor in Portage County was approved in 1996. Its western boundary is State Highway 49. State Highway 49 has high-speed traffic, and limited road shoulders. To achieve a safe, off-road trail, the planning team determined after field reconnaissance that other alternatives were needed. The proposed expansion is .5 to 2 miles west of State Highway 49. It is defined by Saumer Road, County Trunk A and Bobsiding Road and includes the community of Three Lakes, consisting of Penny Lake, Mud Lake, and Tree Lake and Peterson County Park on Tree Lake. This 4-acre county park includes a beach, picnic area, a well, restrooms, and parking. Another benefit of this expansion would be easier access to less developed, scenic countryside with morainal ridges to the northwest. Land cover is primarily agricultural crops, with scattered timbered areas. The major road to be crossed within the proposed corridor expansion in Portage County is State Highway 49.

Map 5-1--“Preferred” Ice Age NST Corridor, North

Map 5-2-- Preferred Corridor, Central

Map 5-3-- “Preferred” Ice Age NST Corridor, South

## C. ALTERNATIVES CONSIDERED BUT DISMISSED

One other possible corridor location was considered at the beginning of the CPP but dismissed. With the approval of the Portage County Ice Age NST Corridor in 1996, the southern entrance into Marathon County is predetermined. The southern endpoint is within the town of Alban on the northeast corner of Portage County, adjoining the southeast corner of Marathon County. The northern endpoint is located at the county's northeastern corner at the Langlade County line. Another fixed point that all potential corridors must intersect and cross over is State Highway 29, which bisects the county from east to west. Crossing this major highway can only be accomplished at two locations in this area. The first is a recently completed overpass at the Village of Hatley, or a second option is an underpass located in the town of Ringle.

The dismissed alternative is located west of the Preferred Alternative and south of State Highway 29. It focuses on the terminal Hancock Moraine. This option is essentially the route as described in the 1983 *Comprehensive Plan*. Here portions of the terminal moraine are quite distinctive and would be great for interpretive purposes, but also contains extensive wet areas. In addition to these wetlands, land between the Hancock Moraine and Elderon Moraine, where the predetermined southern endpoint is located, a distance of 9-10 miles is very wet. Furthermore, as the Hancock Moraine lies in between the two State Highway 29 crossings, depending on which crossing was used, the trail moving south would need to double back numerous times before reaching the pre-determined endpoint in Portage County. This option was dropped because of the difficulty building a sustainable trail through these low-lying areas for a significant distance, with the probability of a less than great hiking experience. It would also increase the overall costs for development and maintenance of the trail.

## D. ENVIRONMENTALLY PREFERABLE ALTERNATIVE

The Council on Environmental Quality (CEQ) regulations (40 CFR 1500-1508) and the DO-12 require the NPS to identify the alternative that best promotes the goals of Section 101 of the National Environmental Protection Act. The environmentally preferable alternative is defined by the CEQ as: "…the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources" (CEQ 1981).

This Trailway Plan and Environmental Assessment evaluates two alternatives: the No Action and the Preferred Alternative. The No Action alternative would not adopt a specific corridor for the trail. A planning team was formed to investigate corridor and possible route options and conduct a public involvement process. A number of trail routes within the Preferred alternative's Corridor of Opportunity were also identified and evaluated.

The environmentally preferable alternative for a Corridor of Opportunity for the Ice Age NST in Marathon County is the Preferred alternative. The Preferred alternative will provide a focused and accountable implementation of the trail. It will permanently protect some of the geological, biological, and archeological resources within the corridor from development and will create a

protected, undeveloped trailway of diverse habitats (both uplands and wetlands) that will promote an increase in biodiversity. The Preferred alternative will increase public recreational opportunities and connect existing recreational resources. Securing a trailway in public ownership will help maintain existing wildlife and in some cases, will benefit threatened and endangered species by permanently protecting their environment. It will also provide opportunities for local landowners and visitors to have access to the glacial features along the trail as well as enhance public awareness of Wisconsin's glacial landscape through interpretation of the glacial features.

The No Action alternative amounts to abandoning any coordinated, collaborative effort to attain these goals. Through the No Action alternative, the trail may be built in a less than optimal location or have more water crossings than necessary. Without a coordinated effort, the No Action alternative may not join efforts with other groups to create mutually beneficial recreation opportunities or protect significant natural or cultural resources relating to the trail.

Map 5-4 of Marathon County with Preferred Alternative and Alternatives Considered but Dismissed

# Chapter 6
# CORRIDOR'S AFFECTED ENVIRONMENT

## A. LOCATION AND DESCRIPTION OF MARATHON COUNTY

The Ice Age NST's proposed corridor is located within Marathon County in the north central part of the state. At 1,584 square miles, it is the largest of Wisconsin's 72 counties. It is located approximately 150 miles north of Madison, the state capital, 190 miles northeast of Milwaukee, and nearly 280 miles north of Chicago. Interstate Highway (IH) 39, which runs north south through the center of the county, provides strategic statewide access. US Highway (USH) 29, which crosses the state in an east-west direction, intersects IH 39, and the proposed Ice Age Trail corridor.

Most of the county's industry is centered in urban areas. Lumber was the original industry. Today, paper manufacturing, insurance, home manufacturing and tourism are some of the major economic drivers. Agriculture also provides 12.5 percent of the job market. Marathon County's farming industry produces dairy products, Christmas trees, grain crops, meat animals, and ginseng, in which it leads the nation in production.

Marathon County offers abundant opportunities for recreational activities such as biking, fishing, hunting, camping, bird watching, hiking, golfing, cross-country skiing, and snowmobiling. The county is one of the largest providers of public lands in the state with 17 county parks that total 3,370 acres, and nine county forests units that occupy 28,662 acres of land, and numerous trails including the Mountain Bay State Trail. The State of Wisconsin also owns a considerable amount of land that consists of a state park, two large wildlife areas (approximately 21,000 acres), and numerous fishery areas.

The proposed Ice Age NST corridor is located in a north south direction in the far eastern part of the county, where the glaciers came to a halt. The proposed corridor is about 15 miles east of the City of Wausau, the largest population center in the county. Within or adjacent to the proposed corridor are smaller communities such as Ringle, Hatley, Pike Lake, and Galloway. The primary land use found here south of USH 29 is agriculture, while woodlands and managed forests predominate north of the highway. This area also serves as the headwaters for several trout streams.

There are existing segments of the Ice Age Trail within the proposed corridor. All of them are located north of State Highway 29. Here the trail meanders in discontinuous segments from the Plover River State Fishery Area south to the Village of Hatley. Three segments have been certified. They are located in Plover River State Fishery Area, Dells of the Eau Claire County Park, and along the Mountain Bay State Trail through the County landfill site. A long uncertified segment of trail follows the terminal moraine from the County Landfill north through WDNR and Wausau Paper lands in the towns of Ringle and Easton.

# B. CORRIDOR'S PHYSICAL RESOURCES

## Geology

Beginning about 2 million years ago, the climate began to periodically cool and warm. During the colder periods, averaging 100,000 years each, ice sheets as much as three miles high at their centers formed in the Hudson Bay region of Arctic Canada and spread outward across northern North America, including Wisconsin. During warmer periods, averaging 10,000 years in duration, most of the ice sheets melted away. This cyclical process occurred as many as two dozen times during the 2 million years of the Pleistocene Epoch. These ice sheets blanketed portions of Wisconsin many times, but evidence of these events is mostly buried beneath the deposits left by the most recent glaciation.

Approximately 25,000 years ago, the last phase of the Wisconsin Glaciation began. During its colder periods, ice advanced into lowlands now occupied by Lakes Superior and Michigan, Green Bay, and the Fox River. As it flowed across the State of Wisconsin, it was impeded by the uplands of the Bayfield, Keweenaw, and Door Peninsulas, and was split into six major lobes including the Green Bay. The Green Bay Lobe most affected the far eastern portion of Marathon County. During its many advances and retreats it created a landscape in Marathon County that is largely defined by a series of three moraines—Hancock, Almond, Elderon--and an assortment of glacial features such as waterlain sediments, ice-walled lake plains, kettle depressions, and drainage and tunnel channels.

Moraines are ridges formed by unsorted gravel, sand, and boulders carried by the glacier and deposited at various times along its outer edge. The Hancock, Almond, and Elderon Moraines are located in the far-east side of Marathon County in a 1-14 mile wide band. They align in a gentle northeast to southwest direction. The Hancock or terminal moraine marks the furthest extent of the last glacial advance and it occurred approximately 25,000-30,000 years ago. After the Hancock phase, the ice margin melted back and then re-advanced and formed the Almond Moraine.

The Almond Moraine is similar to the Hancock Moraine. In most areas, the fronts of both moraines are steep, and their tops are hummocky and scattered with boulders (erratics). It has been suggested that the hummocky topography found in these moraines was caused by the outer edge of the ice sheet being frozen to its bed. This would explain the stacking and accumulation of thick glacial deposits, and would have allowed the formation of kettles, kames, ice-walled lake plains and the cutting of tunnel channels.

About 13,000 to 14,000 years ago, the Elderon Moraines were formed as a result of the glacier melting back from the Almond Moraine, pausing and then advancing a number of times. The Elderon Moraines are different from the other two moraines. They consist of narrow, discontinuous ice-marginal ridges without the hummocky topography, tunnel channels, and ice-walled-lake plains. When the Elderon Moraines were formed, the climate had warmed and the glacier was no longer frozen, but was sliding on its bed.

There are a number of distinctive geologic features found on the moraines. Numerous tunnel channels punctuate both the Hancock and Almond Moraines. They were created by meltwaters flowing under the glacial ice. A particularly good example of a tunnel channel is found near the Village of Hancock. State Highway 29 and the railroad grade for the former Chicago and Northwestern, now the Mountain Bay State Trail, both took advantage of this gap in the moraines when they were constructed.

Kettles are common along both the Hancock and Almond Moraines. These are surface depressions that were formed by large, buried blocks of melting ice. As the ice melted, the sand and gravel above them collapsed, leaving the depressions. These kettles may be dry or contain wetlands or small lakes. In addition to kettles, kames are also found on these moraines. A kame is a conical hill composed primarily of water-rounded sand and cobbles left by streams that flowed downward through shafts in the glacial ice. The Klaver Kame, located along an existing segment of the Ice Age NST in the town of Ringle is the best known example of this feature within the corridor.

Ice-walled lake plains can be found throughout the proposed corridor but particularly south of Hatley. Ice walled lake plains are flat-topped hills that were once lakes contained within the glacier. As the glacier melted, streams deposited loads of sediment into these lakes. When the surrounding glacier melted, the lake bottoms became the hilltops. Good examples of ice-walled lake plains can be found in Section 31 in the town of Norrie, just west of Bass Lake; Sections 5, 6, and 31, in the town of Elderon; and a very large cluster dominates Sections 13, 14, 23 and 24, and 36, in the town of Reid.

Rivers located within the proposed corridor can also attribute their modern day courses to the melting of the Green Bay Lobe. The Eau Claire River, which runs diagonally northeast to southwest through the northern part of the study area, occurred during the Hancock phase. Tunnel channels cut through the Hancock Moraine and funneled meltwater towards the Eau Claire and Little Eau Claire Rivers. In addition, as mention in *Chapter 5-- Town of Easton and Plover*, what is today the Eau Claire River was once a torrent of glacial meltwater that created the rocky gorge in the Dells of the Eau Claire County Park.

The Marathon County Ice Age NST Core Team selected this location for the proposed corridor because here the topographic characteristics are classic examples of features formed in front of, at the edge of, and underneath the furthermost advance of the glacial ice sheet. The sheer abundance and variety geologic features will provide educational and interpretive opportunities for hikers, students, and other trail users.

## Soils

The bedrock soils in the Ice Age NST's proposed corridor originated from igneous, volcanic, and metamorphic rock materials created during the Precambrain Epoch. Except for major drainage-ways such as the Dells of the Eau Claire County Park, this Precambrain bedrock is typically overlain with 10-260 feet of glacial materials deposited by the Green Bay Lobe some 25,000-30,000 years ago during the Pleistocene Epoch. Soils found in this area are derived from the weathering of glacial drift, outwash and bedrock, and are predominately sands, loamy sands, and

sandy loams. Glacial erratics are scattered throughout the project area. Sandier soils are found in the southern part of the county. This is because glacial ice flowing over this area would have crossed more Cambrian sandstone than in the northern part of the county. These soils are ideal for certain types of agricultural crops, particularly potatoes.

According to the United State Department of Agriculture's Soil Survey of Marathon County, 5 of the 10 major soil associations in the county are found in the eastern 10 townships affected by the project area. A soil association is a landscape that has a distinctive pattern of soils, relief, and drainage. It is typically named for the major soils even though it may contain other minor soil types. The Kennan-Hatley Association is by far the predominant soil association found in the proposed corridor. Kennan-Hatley soils were formed in the youngest glacial till. The following are brief descriptions of the five soil associations with an assessment of their capacity for trail development.

The Kennan-Hatley Association makes up 60-70 percent of the proposed Ice Age NST corridor and consists primarily of the Almond Moraine, and to a lesser extent the Hancock Moraine. This association is coarse in nature and is described as "deep, nearly level to steep, well drained and somewhat poorly drained, bouldery, cobbly, silty, and loamy soils on slopes ranging from 2 to 30 percent. Kennan soils are commonly found on "tops and sides of knolls, hills, and ridges on terminal and recessional moraines" Stones and boulders often appear on its surface. Hatley and other soil types are nearly level to undulating and are found adjacent and in drainageways, former glacial lake plains, and stream terraces. They range from poorly to excessively drained. The predominant management concerns are water erosion, slope, stones, and boulders. Once the boulders have been removed, soils in this association are suited to cultivated crops and trees. Most of these soils have moderate limitations for trails and paths because of slope and/or stones.

Chetek-Rosholt-Oesterle is the next most common association. It is found on outwash plains and stream terraces primarily in the town of Franzen, but can be found throughout the proposed corridor. These soils are described as "deep, nearly level to steep, poorly to excessively drained, loamy, silty." They are found on convex or concave areas or flats with slopes that range from 0-30 percent. Erosion, drought, and soil blowing are the major constraints of this association. These soils are commonly cultivated for crops such as corn, and have only "slight" restrictions for trails and paths.

Fenwood-Rietbrock-Rozellville Association is found within the proposed corridor in the towns of Easton and Ringle. It is found on ground moraines and uplands that are underlain by igneous and metamorphic bedrock. They are described as "deep, nearly level to steep, well drained and somewhat poorly drained, stony, and silty soils on ground moraines and bedrock controlled uplands. Cobbles, stones, and bedrock are common on the surface. Slopes range from 1-30 percent with erosion being the primary management concern. Most of this association is used for growing crops or trees. These soils have "moderate to severe" limitations for trail and paths because of slope, wetness, or boulders.

Mahtomedi-Graycalm-Meehan Association is found around Pike Lake and Mission Lake because they are glacial lake basins. These soils are nearly level to gently sloping, and excessively to poorly drained. Their slopes range from 0-6 percent. Organic soils are found in

this association such as Cathro. Drought and the hazards of soil blowing are the primary management concerns. Limitations for trail and path development are "moderate to severe" because of wetness or sand.

A small portion of the Marathon-Myllrea-Moberg Association is found in the northern portion of the proposed corridor in the town of Plover. It is found on the knolls and ridges of ground moraines and have slopes that range from 1-16 percent. It is described as "deep, nearly level to moderately steep, poorly to excessively drained, stony, gravelly, and silty." Limitations include rocks, slope, and wetness. The most common type of land use for this association is woodlands. These soils have 'moderate to severe" limitations for trail and path development because of slope, boulders, and wetness.

## Water Resources

The proposed Ice Age NST Corridor is located within two watershed basins – the Wolf River and Upper Wisconsin Central Basin. The Wolf River Basin covers over 2,600 square miles and is one of the main contributors to the Fox River. The Central Wisconsin Basin has an area over 4,300 square miles and contains all of the drainage area downstream of the confluence with the Prairie River and upstream of the Lower Wisconsin Basin.

The Plover, Eau Claire, and Little Wolf Rivers all flow through the proposed Ice Age NST corridor. Originating from glacial meltwaters, all of the rivers are high quality trout fisheries. The Plover River is located between the Hancock and Almond moraines and is part of the Upper Wisconsin River Basin. It is the largest trout stream in Marathon County, and one of the largest in the State of Wisconsin. It flows generally southwest through the northern third of the corridor eventually reaching the Wisconsin River. The Little Wolf River flows southeast through the southern third of the corridor towards the Wolf River and Lake Michigan. Other Marathon County trout streams in the proposed corridor include Holt Creek, Aniwa Creek, Mole Brook, and Spring Brook.

Surface waters within the project area have relatively high overall quality and provide a good sport fishery. Lake levels and stream base flow are directly related to local groundwater supplies. Most of the groundwater is found near the surface because of shallow soils over bedrock. This region contains many springs and seeps. Depending on the rate of discharge on local topography, groundwater finds its way to the surface by flowing into streams or it may accumulate in a pond or marsh. Groundwater seepage is largely responsible for the abundance of trout streams in the project area.

Threats to the surface water and groundwater quality include soil erosion due to land development and agricultural practices, contamination from pesticide over-use in permeable soils, depletion from over-irrigation, and various other point and non-point sources. Loss of wetlands due to development activities also threatens the water system. A number of basin and watershed management plans and best management practices are in place, however, to help safeguard these valuable resources.

## Air Quality

The ambient air quality within the proposed corridor is generally good and could be characterized as "fresh country air." For the most part, ozone is not an air quality concern in this area. Airborne dust mobilized by plowing or wind erosion of bare soil in agricultural fields at times may be a problem.

## Visual Resources

When a corridor for the Ice Age NST is first defined, the geologic features as well as the aesthetic values such as the foreground scenery, distant views and natural environments, are taken into consideration. The corridor must contain elements that create a visually diverse hiking experience since the Ice Age Trail is foremost a National Scenic Trail. Most of these elements are contained within the corridor, but some are located outside of it and can be seen from high vantage points within the corridor. During the planning process, geologic features, high points, and places of scenic beauty such as kettle ponds and high quality plant communities are identified and mapped. Conceptual trail routes are then designed to connect these various features. These collective viewscapes are the heart of the Ice Age NST. They tell the story, first-hand, of how the glacier shaped the landscape of Wisconsin and created its diverse biological ecosystems and water resources. In addition, they act as landmarks for hikers who consciously or subconsciously use these features as a map or way-finding system to identify where they are along the route of the trail.

Landforms, scenic views, and natural areas or plant communities have been designed into the proposed corridor plan, because of their aesthetic and educational value. The undulating topography of the Hancock, Almond and Elderon moraines, tunnel channels, ice walled lake plains, and numerous kettle ponds are the significant features within the proposed corridor.

The juxtaposition of human land uses (crops, farm buildings) upon the corridor's topographic features offers variety as well as a pedestrian scale. Pastures located on the moraines are scattered with boulders (erratics) deposited as the glacier retreated. Rock-lined fences surrounding croplands are evidence of decades of manual labor from those farmers willing to till the land. Pastoral views are created by tree-lined cropland set atop rolling hills. Specialty crops contributing to the rural character include ginseng, and potatoes.

Beautiful, natural environments such as the Little Wolf River, Mission Lake, Dells of the Eau Claire and Plover River SFA are also located within the proposed corridor. These sites provide lush green settings and delightful scenery for the meandering walker. Lowlands provide kettle lakes and wetlands that are animated with wildlife. Walking along the Ice Age NST through the rolling countryside, open spaces, and woodlands of Marathon County will provide a continually changing and delightful experience for the hiker.

# C. CORRIDOR'S BIOLOGICAL RESOURCES

## Ecosystem

According to the Wisconsin Department of Natural Resources, Marathon County lies entirely within the Forest Transition Ecological Landscape along the northern border of Wisconsin's Tension Zone. Plant distributions are largely dependent upon the degree of snow persistence in the winter and the degree to which the soil freezes.

The pre-settlement vegetation of eastern Marathon County consisted primarily of upland maple, hemlock, yellow birch; and in the lowlands, black spruce, tamarack, and cedar. These plant communities were the result of natural succession influenced by fire and other factors.

Today, woodlands cover 53 percent of the proposed corridor. Significant stands of upland hardwood forests such as yellow birch, sugar maple, red and white oak, white pine, hickory, basswood, and hemlock are located here. Beneath the hardwoods, spring wildflowers and ephemerals such as jack-in-the-pulpit, spring beauty, squirrel corn, trout lily, and blood root form carpets in the spring. Trees associated with second growth forests established due to logging are white, red, and jack pines in the northeast portion of the corridor; and aspen and birch in the southeast. In addition to forestlands, 1.5 percent of the proposed corridor lies in wetlands, marshes, and conifer swamps, along with their associated vegetation and wildlife.

One critical habitat, which has been designated a State Natural Area (SNA), is located in the southeast corner of the Dells of the Eau Claire County Park. This area contains a prehistoric riverbed and rare plant communities. Ferns and mosses grow in crannies in the lichen-spotted rocks. Many plants with natural ranges into Canada are found in the gorge as well as several species of ground pines. These plants, as well as the scouring rushes found along the riverbank, are representatives of old and primitive plant communities.

A final category of vegetation, which includes residential plantings and agricultural fields, both abandoned and currently cultivated, represent about 40 percent of the proposed corridor. Residential plantings include native and ornamental species. Agricultural crops grown in this area are alfalfa, corn, soybeans, cranberries, ginseng, potatoes, and crop covers such as grain and vegetables. Old fields of various ages are present and exhibit a range of successional plant species.

## Invasive Species

According to Executive Order 13112, the "Invasive Species Act," an invasive species is "a species that is: 1. non-native (or alien) to the ecosystem under consideration and 2) whose introduction causes or is likely to cause economic or environmental harm or harm to human health."

The Ice Age NST will traverse a variety of ecosystems like northern hardwoods, coniferous wetlands, and pine plantations. Problematic species for wooded areas are buckthorn,

honeysuckle and most recently, garlic mustard. Common invasive species of concern for open areas in this part of the state are spotted knapweed, wild parsnip, leafy spurge, and sweet clover. Purple loosestrife is a concern in wet areas.

The State of Wisconsin enacted an invasive species rule, Chapter NR 40, which took effect September 1, 2009, that aims to keep new invaders from getting to Wisconsin in the first place. It also allows the DNR to move more rapidly to contain new invasives to prevent them from being established when they are detected. NR 40 lists several prohibited species that have yet to gain a strong foothold in the state and can still be effectively managed. WDNR also produced several guides and manuals that identify potential invaders, which could degrade the local ecosystem and negatively affect local economies. More information can be found at the WDNR website at <http://dnr.wi.gov/invasives>.

## Wildlife

Wildlife is abundant in the proposed corridor. More than 100 species of birds are known to breed in the area. Wetlands are home to waterfowl including sandpipers, herons, cranes and several species of ducks. These areas also provide resting and feeding areas for migratory waterfowl. Woodlands and fields provide habitat for other species like various owls, sparrows, finches, flycatchers, woodpeckers, hawks, wrens, and warblers. Game birds known to nest in the area include: wild turkey, woodcock, goose, pheasant, and grouse.

Principal furbearers found here are beaver, otter, muskrat, fox, coyote, black bear, fisher, and mink. Reports of wolves making their way into the area have also surfaced. Other small mammals include raccoon, woodchuck, squirrel, and skunk. A wide variety of game species abound throughout the forested regions of the county. Small game species include squirrel (gray and fox) and rabbit (snowshoe and cottontail). White tail deer is the most popular species hunted.

## Fisheries

The waters of the study area contain a variety of cold and warm-water fish species. Warm-water species such as northern pike, bass, panfish, and carp inhabit 75 percent of the lakes and 77 percent of streams. Forage fish are found in the many small, shallow lakes, which are not suitable for game fish due to winterkill. These forage fish are often the subject of live trapping for sale as bait. Walleye is a very popular warm water game fish, but it is found in very few Marathon County lakes.

Cold-water species such as brook trout, brown trout, and rainbow trout are generally found in the deep spring-fed lakes and faster flowing streams that have a temperature of less than 75° F. Nearly all the headwater streams that emanate from the moraines are found in the far eastern portion of the county, the general location of the proposed corridor, and are considered Class 1 trout streams. They include portions of the Little Wolf River, Holt Creek, the Plover River, Aniwa Creek, Mole Brook and Spring Brook. The WDNR has defined Class 1 trout streams as those which exhibit natural reproduction and do not need supplemental stocking to sustain a viable trout fishery. The upper reaches of the Eau Claire River is considered a Class 2 trout

stream, having some natural reproduction, but requiring stocking to maintain a desirable sport fishery.

### Threatened and Endangered Species

According to the U.S. Fish and Wildlife Service (USFWS), the only federally listed endangered species which might occur in Marathon County is the Whooping Crane. The Wisconsin population of this species is considered to be experimental except where it occurs within the National Wildlife Refuge System or the National Park System, where it is a treated as a threatened species. The experimental population designation denotes more flexible management for proposed endangered species or threatened species. It prefers bogs, lake margins, wetlands, and marshes with water levels typically 8 to 18 inches deep. Habitat for this species is found in several locations in and near the proposed Ice Age NST corridor. However, they tend to be poor locations to place the trail. The Bald Eagle and Gray Wolf are known to exist in the county, but they are no longer federally listed in Wisconsin.

The WDNR Wisconsin Natural Heritage Inventory Program tracts the location and status of rare species, natural communities, and natural features within the state. Four state threatened and special concern species were found within the proposed corridor. They are the Red-Shouldered Hawk (threatened), Deam's Rockcress (special concern) and two fish species--Pirate Perch and Redside Dace (special concern). State species of Special Concern are those that have suffered a decline that could threaten the species if allowed to continue unchecked, occur in such small numbers, have a restricted distribution, or specialized habitat requirements. These circumstances could easily lead them to become Threatened in Wisconsin. State Threatened species are those which may become Endangered.

## D. CORRIDOR'S CULTURAL RESOURCES

### Historical Sites and Structures

European-Americans left their mark on the landscape of Marathon County with the influx of immigrants in the mid 1800s. These immigrants were composed primarily of Germans and Polish, as well as Norwegians, Danish, and Dutch. They came to the area to farm or lumber. Within the proposed corridor, some of their churches, school, mills, homesteads, as well as picturesque fencerow boulders from early land clearing, are culturally significant.

The Wisconsin Historical Society's Architecture and History Inventory has records on historic buildings, structures, sites, objects, and historic districts throughout Wisconsin. Their records reveal architecturally unique farm buildings in the town of Easton, a basement barn and the Eau Claire Dells Bridge in the town of Plover, an architecturally unique house in the town of Norrie, and a Native American Church in the town of Franzen. The State Historical Society lists 25 National Register sites for Marathon County, although none are located within the proposed corridor. However, a number of other interesting historic buildings are also found here.

In the town of Easton, an old school and the town hall are located on County Trunk Q. The Zahrt Sawmill, which was built in the 1920s, is still in operation. The William Barden House was built in 1877. It is the oldest frame house built in the area. In the community of Sunset, the Sunset Tavern once served as a post office and a dance hall. Just north of the Tavern is the former Sunset Cooperative Cheese Factory, which was built in 1894.

In the town of Ringle, at the intersection of Highway N and River Road, there are remains of a small cheese factory. On the west side of County Trunk Q, the original Ringle Town Hall and the remains of a brown tile silo from the early 1900s can be seen.

In the Village of Hatley, a few of the buildings from Hatley Lumber Mill date back to the 1900's, and are still used to process logs harvested from local farmers' woodlots. On Clark Street, there are storefronts from the early 1900s, which formerly faced the Chicago & Northwestern Railroad. St. Florian Catholic Church, located at the intersection of State Highway 29 and Highway Y, is now the most prominent landmark in the community. The first church building on the site was built by Polish immigrants in 1898, and was replaced by the current brick structure in 1913.

In the towns of Bevent and Franzen, the importance of religion by Polish immigrants is evidenced by the many roadside shrines that still can be seen in this area. Those shrines include small brick structures, bathtub grottos, and crosses. The community of Bevent was once a thriving farming area with two general stores, a creamery, blacksmith shop, and a portable sawmill. All that remains of that era are a few storefronts and the St. Ladislaus Catholic Church, a rural farm parish that dates back to 1883.

## Archeological Resources

Archeological investigations have shown that Native Americans inhabited eastern Marathon County since the Pleistocene Epoch, approximately 14,000 years ago. Today we recognize three distinct cultures that spanned the period from glaciation to the present – Paleoindian Cultural Tradition, 10,000 – 6,000 B.C.; Archaic Cultural Tradition, 6,000-500 B.C.; and Woodland Cultural Tradition, 500 B.C. to European Contact.

Among the tribes who were probably in the general area of central Wisconsin, were the Menominee, Fox (Outagamie), Chippewa (Ojibwa), Potawatomi, Mascoutin, and Sac (Saux), all members of the Algonquin language group; and the Ho-Chunk, a branch of the Sioux (Dakotas). Other Dakota tribes roamed the area from time to time, traveling between the Wisconsin River and their homelands near the Mississippi. Later there were also numbers of Hurons driven west by their enemies.

One location of significance in the proposed corridor is the Legion Ball Park in Hatley, which was the meeting ground of the Ho-Chunk Indians. They traveled from as far away as Nebraska to camp here and receive their government annuities. Listed in the Wisconsin Historic and Archeological database, another place of note is a Native American Church in the town of Franzen.

While Marathon County contains a wealth of cultural resources, there are no sites listed on the National Register of Historic Places within the study area.

## E. CORRIDOR'S SOCIO-ECONOMIC RESOURCES

The proposed Ice Age NST corridor is located in a picturesque, rural region, which contains an abundance of wetlands, farmland, and woodlands. Public lands such as Eau Claire Dells and Mission Lake County Parks and a variety of wildlife areas are favorite open spaces for area residents given their close proximity to the Wausau Area. Like many other rural areas, the lack of employment opportunities and good paying jobs historically has resulted in the outmigration of a sizable number of young adults. In recent years, however, an improved transportation network has shortened travel times to nearby larger employment centers, helping stem outmigration by allowing more permanent residents to remain in the area and commute to work. Similarly, new residents have been attracted to the county from these urban centers, who willingly trade a longer work commute for the ability to have the area's scenic attributes and year-round recreational opportunities at their doorstep.

Between the 1990 and 2000 Census, the population increased 8.3 percent within the proposed corridor. The growth rate for the towns and villages within this area is projected to be around 12 percent, which is higher than the projected population growth of 10 percent for the county as a whole. An increasing percentage of new residential developments are occurring in towns outside of these villages and small cities. In 2000, the census reported 3,576 total housing units in the corridor planning area – up 16 percent from 1990. The elderly, likewise, are looking for a desirable place to retire. The median age in Marathon County is 36.3, indicating a slightly older population than the State of Wisconsin, which has a median age of 36.0 years. In the upcoming years, the elderly population in the County is expected to continue to increase.

### Communities and Businesses

One of Marathon County's 18 incorporated communities lies within the proposed corridor. The Village of Hatley is located near the center of the proposed corridor along State Highway 29. With a population of 476, it acts as a service center for State Highway 29, but there is little other commercial development. As a result, many area residents rely on larger urban centers such as Wausau, Steven's Point, and Antigo for shopping as well as employment. Recently, Hatley constructed a new community center and library facility, which serves residents, including seniors, in the communities of Bevent, Elderon, Hatley, Norrie, Reid, and Ringle.

There are also a number of unincorporated communities in or near the proposed corridor including Hogarty (town of Harrison), Ringle (town of Ringle), Norrie (town of Norrie), Bevent (town of Bevent), Pike Lake (town of Reid), and Galloway (town of Franzen). These rural residential clusters contain churches and community facilities in addition to houses and, in some cases, small businesses. There are no reliable population figures or future projections for these areas.

The ten unincorporated towns surrounding the proposed corridor are for the most part sparsely populated. They are collectively projected to grow by over 1,700, a 20 percent increase, between 2005 and 2025. Much of this growth may be the result of an increase in development along nearby State Highway 29. While growth in the rural towns is roughly 11 percent, the Village of Hatley is projected to grow by almost 50 percent. As residential development continues to expand east of Wausau, communities with some proximity to Highway 29 will become more attractive to commuters leading some to move to the more rural communities.

A continuing trend will be a decline in the number of farm residences (and farm households). This decline will be offset by new rural residential development, which will house residents working in jobs elsewhere. This pattern of growth reflects a national trend where an increasing percentage of new residential development is occurring in outlying rural areas. Families looking for a better quality of life and empty nesters looking for a desirable place to retire are largely responsible for this trend. These influences will likely continue to contribute to the increase of land values and development within the corridor. They will also create a greater need to protect significant natural resource features as well as provide additional areas for individuals to recreate.

With an increased focus on attracting visitors and visitor-dollars into the local economy, the communities located near the proposed Ice Age NST corridor may benefit economically from trail users by providing such support opportunities as grocery stores, restaurants, campgrounds, and bed and breakfasts.

## Land Use and Land Ownership

Primary land uses within the planning area are agriculture, forestry and residential. Although forestland is the highest land use, agriculture has a larger economic impact and employs more people.

Farmland covers 57 percent of the entire county, while 34 percent covers the proposed corridor. Since the 1982 Agriculture Census, the County has lost 20 percent of its farms and 15 percent of its farmland. Historically, dairy farming has been the most important type of farming, though many operations were lost in the last decade. In the planning corridor, dairy farms range from 0.5-1 dairy farm per square mile. Increasingly, farmland is being converted into other uses such as residential home sites.

Re-zonings to Residential generally accompany platted subdivisions, but this type of development is rare with the exception of river and lakeshore areas. Recent activity within the proposed corridor includes a residential subdivision in Easton, and near the Plover River in Bevent. Estate-style properties are being developed in the town of Hewitt, located near the corridor, at the rate of about five a year. Subdivisions and residential development is taking place in proximity to the STH 29 corridor, especially in the town of Ringle and the Village of Hatley.

Forestlands have also been slowly increasing countywide, where currently they utilize about 38 percent of the land. Within the proposed corridor, forests occupy 53 percent of the land. Over

34 percent of the proposed corridor is under agricultural production, while grasslands and other open spaces occupy an additional 6.1 percent.

## Ceded Lands

Wisconsin's native tribes retain their right to hunt, fish and gather within their former territories as a matter of federal treaty. The maintenance of these rights is comparable to a conservation easement and the off-reservation lands are known as ceded lands. Eastern Marathon County is part of the ceded territory of the Lake Superior Chippewa Tribes.

**Table 1**
**EXISTING LAND USE**
**Proposed Ice Age Trail Corridor**

| **Table 1 – Estimated Land Use in the Proposed Marathon County Ice Age Trail Corridor** | |
|---|---|
| **Land Use Type** | **% of Total** |
| Grasslands, Pasture, Scrub, Marsh, Unused Open Space | 6.1 |
| Commercial | 0.1 |
| Crop Land | 25.7 |
| Forest Land | 52.8 |
| Other Agriculture | 8.7 |
| Public/Quasi-Public | 0.02 |
| Quarry | 0.1 |
| Recreational | 0.04 |
| Residential | 2.5 |
| Transportation | 2.3 |
| Water | 1.4 |

Source: Marathon County Planning Department

## Recreation Resources

The proposed Ice Age NST corridor contains an abundance of public lands that provide the public with an array of recreational opportunities. The following inventory provides a description of the major recreation areas within the corridor.

The proposed Ice Age NST corridor contains a large portion of the Plover River State Fishery Area, located in northeastern Marathon County. It is 1,405.8 acres, and provides excellent opportunities for the public to fish, hunt, and observe wildlife. Over the last couple of years, Ice Age Trail Alliance staff and chapter volunteers worked with WDNR land managers to locate a route for the Ice Age Trail through this property. A 2-mile segment was built here in 2010. The proposed corridor also contains a small portion of the Little Wolf State Fishery Area located in the northeast corner of Portage County.

The Mountain-Bay State Trail is an 83-mile trail from the Village of Weston in Marathon County and ending in the Village of Howard in Brown County. The trail right-of-way, the former Chicago Northwestern Railroad right-of-way, is owned by the WDNR except for the western 3.5 miles, which is owned by the Village or Weston. Marathon County manages approximately 17 miles of the Mountain-Bay Trail within the county boundaries. The trail consists of crushed stone trail tread placed over existing railroad ballast. The Ice Age NST currently uses a short portion of the trail, approximately 3.0 miles between the Village of Hatley and the County Landfill Site.

There are two County parks within the planning area. The Dells of the Eau Claire is one of the most popular parks in the region as well as the county. It is a 190-acre park bisected by the Eau Claire River in northeast Marathon County. The park is famous for the rock outcroppings and rapids along the river just west of the County Highway Y bridge. The park offers a variety of active and passive recreation facilities. There is an extensive trail system throughout the park, including a Marathon County segment of the Ice Age National Scenic Trail.

Mission Lake County Park is located on the west bank of Mission Lake in southeast Marathon County. This 122-acre park, which includes a recent 75-acre addition, has a wide variety of park facilities that include: open-sided shelters, restrooms, picnic tables, grills, children's play equipment, and drinking fountains. Mission Lake Park also offers a sand beach for swimming and a boat launch for access to the lake.

Within Marathon County, there are fifty-five kilometers of cross-county skiing, including the Ringle Trail, a 3.4-mile loop located within the proposed corridor. It is great for beginners and for those who want to enjoy classical skiing across gently rolling terrain.

The Ice Age National Scenic Trail fits well within this range of recreational alternatives. Social events are routinely held on the existing segments. A Winter Trails Day Snowshoe Outing is held when snow accumulation is sufficient. Geology hikes also take place several times a year.

Collectively, there is a relatively good supply of support facilities to accommodate hikers within and near the proposed corridor. Support facilities provide for hiker convenience, comfort, or sanitation. They include parking, trailheads, restrooms, camping, or other overnight accommodations, potable or filterable water sources, and opportunities to obtain supplies such as food.

Parking and restroom facilities within the proposed "Corridor of Opportunity" are available at the Dells of the Eau Claire County Park and Mission Lake County Park. Parking is also available at the southern end of the Dells of the Eau Claire Ice Age NST segment on County Highway Z, and at both the northern and southern terminus of the Ringle Cross County Ski Trail.

The Village of Hatley has recently completed the construction of a new Community Center adjacent to the Mountain Bay State Trail. This new community asset includes restroom facilities and an Ice Age NST trailhead, parking, and informational kiosk. Also in Hatley, the Wisconsin Department of Transportation (DOT) has redesigned the State Highway 29/County Trunk Y

interchange to include a pedestrian-friendly overpass. This overpass will facilitate the safe passage of hikers over the ever-increasing traffic on Highway 29.

Campsites are available at the Dells of the Eau Claire County Park. Campgrounds are provided on both sides of the highway north of the river. Campgrounds are open May through October. A large CCC vintage shelter is situated to the west of the highway north of the river.

Supplies may be purchased in several communities within the proposed corridor including Galloway, Pike Lake, and Hatley.

## Public Health

The Ice Age NST will contribute to public health and well-being. "Walking for Pleasure" is the most popular recreation activity in Wisconsin. It is enjoyed by an estimated 85 percent of the population. Completion of the Ice Age NST in Marathon will provide an opportunity for people to obtain regular exercise.

## Tax Base

In 2009, the collective tax base of the nine towns through which the proposed Ice Age NST corridor passes was $604,956,400. This included about $165,297,500 in land value and an additional $439,658,900 in improvements. Based on the proportion of each town's land area actually lying within the corridor boundary, it is estimated that the total tax base of corridor lands is approximately $165,854,883, including $34,425,524 in land and $131,429,359 in improvements. With the land within the corridor estimated at about 94.4 square miles, the gross average assessed value of land was slightly over $561 per acre. For the county as a whole (excluding incorporated communities), the gross average assessed value was about $ 1,175 per acre.

# Chapter 7

# CORRIDOR IMPACT ANALYSIS

This chapter presents the probable impacts to the natural, cultural, and socio-economic resources of the No Action and Preferred alternatives. Evaluation of the impacts requires consideration of the intensity, duration, and cumulative nature of the impact, as well as a description of any measures to mitigate for adverse impacts. A summary of environmental impacts is discussed below. Impacts are described as beneficial, adverse, or negligible. Beneficial impacts would result in a change that moves a resource toward its desired condition. Adverse impacts would result in a change that moves a resource away from its desired condition. A negligible effect would be a change that is so small that it would not be measurable.

## IMPACT ANALYSIS SUMMARY

### Impacts Common to Both Alternatives

The Ice Age NST is by law a non-motorized trail. It is administered by the NPS and managed by a number of public and private partners as a trail suitable for foot travel only. It is reasonably foreseeable that trail construction of a footpath would eventually take place either within the No Action alternative (1983 Comprehensive Plan route) or in the Preferred alternative. The Ice Age NST has A Handbook for Trail Design, Construction, and Maintenance that guides its development. If the standards are followed, the physical impacts to the resources would be similar only the location of the trail would change. Trail construction would have minor and temporary adverse impacts on natural resources located within the construction zone. These impacts would be limited to the period of actual trail construction. Trail use would be expected to have negligible and continuing impacts on the physical environment, primarily in the form of increase in foot traffic and periodic maintenance of the corridor. Neither alternative would require actions resulting in impairment of natural, cultural, or social resources.

Ice Age NST construction standards call for a 24-inch tread, with an additional 1-foot vegetation clearance zone on either side. Ground disturbance would be limited to those areas where side-slope benching is required to create a level tread. Total surface impacts are estimated to be less then ½ acre per mile of trail construction. Generally, trail construction and maintenance would take place using hand tools and volunteer labor.

### Differences between Alternatives

Despite similarities between the No Action and Preferred alternative, several differences exist between them. These differences are summarized below.

**Scenic and Recreational Values**

Under the No Action alternative, it is likely that volunteers would initiate trail construction wherever they could gain permission from landowners. This type of unplanned construction would result in a trail that does not highlight or protect important scenic or recreational

resources. Under the Preferred alternative, an evaluative process would allow planners to carefully design trail route options that would highlight and permanently protect the area's scenic and recreational resources.

**Efficient Use of Resources**

Unplanned trail construction that would occur under the No Action alternative may result in a trail that is more expensive to construct because of a longer length, more water crossings, or improperly placed and/or poorly constructed due to lack of foresight. Under the Preferred alternative, the trail would be constructed according to a carefully executed plan. Construction of a planned trail would likely result in a more efficient use of resources as the trail length and number of water crossings will be enough to meet plan recommendations.

**Threatened/Endangered Species and Cultural Resources**

Under the No Action alternative, unplanned trail construction may adversely impact threatened/endangered species or cultural resources. This effect would be avoided with the planning of the Preferred alternative, which identifies biological and cultural resources within the trail corridor. Trail construction under this alternative would make efforts to avoid or protect sensitive resources.

# DETAILED IMPACT ANALYSIS

## A. IMPACTS TO PHYSICAL RESOURCES

### Geology

One of the primary objectives of the Ice Age NST is to preserve and protect significant geological features. Under Preferred alternative an established corridor would be designated that would allow permanent protection of some of these resources from disruptive land uses which would be a beneficial impact. Acquisition within this corridor of areas larger than the trailway would at times be necessary to protect significant features. Development of a trail within this corridor would allow the public access to these geological resources, and would provide an opportunity to interpret their significance within the landscape. Broader public awareness might lead to greater support for protection of these landscape features.

Under the No Action alternative, loss of significant geological features that are not currently protected may occur due to gravel excavation or residential development now occurring at an increasing pace within the corridor. Statewide, significant portions of the terminal moraine are being developed because the soils, drainage, and views afforded on that specific type of landform make it a highly desirable building site. Development on the moraine creates pressure for the extraction of gravel from the moraine and adjacent outwash plains.

Development in eastern Marathon County is concentrated in the Highway 29 corridor near Hatley and in the town of Ringle. In recent years, this has included a number of residential subdivisions as well as isolated homes on large lots. Such dispersed development can lead to the

landscape becoming increasingly fragmented, and may diminish the potential for securing a trail alignment that provides a quality experience. Gravel extraction is not considered desirable because it impacts the visual character of the landscape, but there are instances where it is occurring within the corridor. However, it also allows for the availability of extracted material closer to the area's larger communities. Under the No Action alternative, adverse impacts would include the diminishment of the public's access to these significant geological features and the ability to learn about them first hand.

## Soils

Under both alternatives, impacts to soils may occur but can be mitigated to a negligible level. Soil type, slope, and drainage all influence the suitability of an area to withstand the potential impacts of trail construction and use. When the trail is laid out for construction, the alignment chosen would attempt to minimize the possibility of compaction or erosion of the soil surface. In addition, soils that are rocky or frequently wet, create difficult hiking conditions and would be avoided.

The intensity of impacts to soils caused by trail construction would be limited to minor ground disturbance within the narrow tread corridor. With proper layout of the trail on the landscape (e.g. on slopes less than 10 percent), erosion control techniques, planking or bridges, and trail monitoring, potential impacts to soils from constructing and using the trail can be mitigated to a negligible level. As necessary, proper erosion control techniques such as sidehill construction, waterbars and drainage dips would be employed. Soils that are particularly unsuitable–such as in poorly drained areas–would be avoided. If the trail must cross a wet area, planking or bridges would minimize the negative impacts from this crossing. Monitoring of the trail by volunteer trail maintainers will identify any cumulative erosion problems so that appropriate erosion control actions can be taken. The NPS, in conjunction with the WDNR and the IATA, has developed a handbook on trail design, construction, and maintenance for the Ice Age NST. This handbook is used by all volunteer trail builders. Also, the Ice Age Trail Alliance has a "Mobile Skills Crew" that trains volunteers to build sustainable trail with minimal environmental impacts, and has work groups that build and maintain trail all along the Ice Age NST in support of local trail chapter efforts. For more information about the handbook, see Appendix B–Trail Development and Management.

Under the No Action alternative, the trail may be built wherever it is expedient. When constructed, the trail may not go through a design and layout process that includes development of possible alternative alignments and analysis of potential soil impacts. The assessment of impacts might not be ascertained and may be greater than negligible.

## Water Resources

Kettle lakes, streams, marshes, and wetlands are some of the features included within the proposed trail corridor in Marathon County and creation of the trail affords the opportunity to preserve these water features and interpret their significance within the landscape. Impacts on water resources are possible during construction, use, and maintenance of the trail. These impacts may include sedimentation, degradation to habitat, and stream bank destabilization.

Executive Order 11990, Protection of Wetlands, requires federal agencies to avoid, where possible, impacts to wetlands. The NPS would expect that the necessary permits would be obtained before trail construction through wetland environments begins on any portion of the Ice Age NST.

Trail construction in wetlands is subject to permitting under federal regulations administered by the U.S. Army Corp of Engineers and the Environmental Protection Agency. Wisconsin State Law also has provisions regulating the construction of trail in wetlands and stream crossings. These provisions would be followed in the Preferred alternative.

Under both alternatives, impacts to water resources can be mitigated to a negligible level by using proper water crossing structures where water and wetlands cannot be avoided or where water features are included as part of the glacial heritage. Bridges would be constructed to span creeks and streams, and boardwalks would be constructed through wetlands.

Under the Preferred alternative, it is estimated that one to three water-crossing structures would be constructed. A planned corridor and professional involvement in siting the water crossing structures would help minimize the number of these structures necessary and also minimize related negative impacts to water resources. Ongoing monitoring of existing Ice Age NST segments has ensured that there have not been significant impacts to water resources as a result of either trail construction or trail use.

When water structures are constructed, placement of fill materials or structures in wetlands would be subject to state and federal regulation. The rules in place that govern activities in Wisconsin wetlands include NR 1.95 and NR 103, Wisconsin Administrative Code. Any work on the bed or banks of navigable waters, including bridges, is governed under Chapter 30, Wisconsin Statutes. Permits from the WDNR would be needed to construct bridges and approaches, or conduct development activities in wetlands. Additionally, the U.S. Army Corps of Engineers has jurisdiction over wetlands and waters of the United States under Section 404 of the Clean Water Act. Permits would be needed from the Corps of Engineers for bridges and boardwalks in wetlands.

Under the No Action, alternative similar impacts may occur, but it is difficult to quantify impacts since new and existing trail may be relocated without a planned corridor. Furthermore, the uncoordinated development of the trail may lead to the construction of more water related structures (i.e., bridges, boardwalks, etc.) than may be necessary or efficient which would be an adverse effect.

## Air Quality

Under both alternatives, impacts to air quality would be minimal. The increased number of hikers in the area may slightly increase the level of motorized vehicle emissions as trail users travel to the trail. Conversely, overall emissions may be reduced as more people walk the trail rather than drive for pleasure. Under the Preferred alternative, the presence of a protected greenway would limit some development and therefore limit negative impacts to air quality. The

air quality of Marathon County is good and current and anticipated use of the trail is moderate; therefore, the impact from trail users' vehicles on air quality is expected to be negligible.

### Visual Resources

The Preferred alternative over time would permanently protect land somewhere within the trail corridor from development. The trailway would typically include an area greater than the width of the trail itself, providing a visual buffer from the surrounding landscape. A planned corridor for the trail would ensure that possible trail route options are evaluated to provide outstanding views and excellent hiking experiences.

Vegetative management plans could be implemented to further increase the trailway's scenic value over time. This would positively affect not only the trail but also the surrounding land. Employing vegetative management plans might involve work to enhance existing plant communities or re-create former communities such as prairie restorations, which may beneficially impact biodiversity. Selective pruning or cutting may also be implemented to improve views of features inside or outside the immediate trailway.

Depending on its location, the trail offers numerous opportunities to preserve views, vistas, and other visually appealing topographical and vegetative features. Their incorporation into the trailway would expose visitors to scenic resources they do not normally encounter as they travel through the area, which would be a beneficial impact. Because many of the areas within the trail corridor are known for their scenic beauty, they are especially threatened by scattered rural site development. Some of the most significant are the undeveloped kettle ponds, and tunnel channels, as well as portions of the terminal moraine north of Hatley and west of Galloway. Since virtually any location on or near the moraine is a potential home site, preserving the trailway through acquisition would reduce the number of incongruous visual features seen by trail users, and preserve these features for generations to come.

Under the No Action alternative, the location of the trail would be more dependent on handshake agreements. This means that typically only the trail itself or a very limited area surrounding the trail would be protected from development and, most likely, only on a temporary basis. The natural area created by the trail may be limited in size and could eventually be lost due to relocation of the trail. Under this alternative, planning activities to determine the trail route would be minimal and significant views might therefore be left out of the trail route, which would be an adverse impact.

## B. IMPACTS TO BIOLOGICAL RESOURCES

### Ecosystem

Development of the Preferred alternative in Marathon County will create a continuous, protected; undeveloped trailway of diverse habitats (both uplands and wetlands) that will promote an increase in biodiversity on lands purchased for the trail as well as on the public lands it connects. Because of the linear nature of the trail, this greenspace will serve as a wildlife

corridor, facilitating movement between areas of protected land. A protected trailway will prevent future fragmentation of the trail by prohibiting encroachment of ex-urban developments.

Development of a trailway would have less adverse environmental impacts than many of the existing land uses. Current agricultural land practices make the soils prone to erosion, and use of petro-chemicals may have a negative effect on land and wildlife health. The trailway will create an improved biological habitat for birds and wildlife by supporting plant diversity, allowing natural processes to occur, and reducing fertilizer and pesticide use.

It is possible that the development of the Ice Age NST may act as an attraction and lead to increased residential development along the trailway. This increase in home building could have an adverse impact on the plant and animal communities near the trail. However, residential development in Marathon County is based on larger market trends. In recent years new residential construction countywide has dropped off significantly after peaking in 2003 at roughly 400 it was only slightly more than 100 in 2009. Most development in the eastern part of the county was concentrated in subdivisions near State Highway 29. The trail could somewhat further increase the desirability of these areas for rural residential development. However, the trail's role in encouraging residential development is likely to be limited to areas directly adjacent to the trail and will not be significant within the larger development trend of Marathon County.

Further land acquisition and development of the Ice Age NST into adjacent counties and beyond will extend the protected trailway. The cumulative impacts of this protection would increase public recreational opportunities, and promote increased bio-diversity by discouraging habitat fragmentation and resource destruction, which would be a beneficial impact.

Under the No Action alternative, if the volunteers from the IATA are able to obtain permission from private landowners to cross their property, the ecosystem may temporarily benefit if the trailway is wide enough; however, this is not usually the case. Changing land ownership and development would always be a threat, causing an adverse fragmentation of the trailway and ecosystem.

## Invasive Species

Invasive species are currently spreading into ecosystems within the corridor regardless of the trail. Under both alternatives, it is possible that a non-native species could be introduced within the trailway. Under the Preferred alternative, planned and coordinated development and maintenance of the Ice Age NST would occur, which would help control the advance of exotic vegetation into native ecosystems. This is a beneficial outcome.

Ideally, a program of monitoring and inspection for invasive species should be a regular trail maintenance activity. Trail maintenance on publicly owned properties is performed according to specific agreements, schedules, and policies developed specifically for the property. In some instances, the WDNR staff according to procedures will perform trail maintenance. In other cases, maintenance will be done by volunteers who participate in annual and periodic trail activities.

Control activities follow the recommendations outlined in the Wisconsin Manual of Control Recommendations for Ecologically Invasive Plants edited by Randy Hoffman and Kelly Kearns. This publication provides information about the identification, monitoring, and control of exotic and invasive species in a manner sensitive to both individual species and natural communities. It was produced by Wisconsin Department of Natural Resources, Bureau of Endangered Resources in May 1997. The publication is available on-line through the department's website at <http://dnr.wi.gov/invasives/publications/books.htm>.

The Wisconsin Council on Forestry also sponsored the development of Best Management Practices to help control the spread of invasive species, specifically for forests, recreational areas, urban forests and transportation and utility rights-of-ways. This publication is available on –line at the counsel's website at http://council.wisconsinforestry.org/invasives/.

A wayside exhibit and boot brush, as shown below, could be located at the entrance to Ice Age NST segments to inform hikers about the existence of invasive species, their effect on the native environment, appearance, and control measures. These interpretive materials include information about how the hiker can help to limit the spread of invasive species by staying on the trail and using the boot brushes.

Under the No Action alternative, development of the trail would be more opportunistic. It would probably not undergo the same evaluative process, at times utilizing WDNR land managers, to help identify a route that would have the least impact on advancing exotic species. This would adversely affect this growing problem.

## Wildlife

In general, under the Preferred alternative, securing a trailway would have no significant impacts on the wildlife within the proposed corridor. The area where the proposed corridor is located is rural with the dominant land use being agriculture interspersed with woodlands. The area north of State Highway 29 is primarily forested, while the southern area is more agricultural with the primary crops being field and sweet corn, soybeans, and alfalfa. Significant acreage is also allocated to the production of Christmas trees, especially in the northern sections of the county. Closer to the southeast corner of the county spray-irrigated potato production is the primary

agricultural activity. This type of land use creates good wildlife habitat particularly for "edge" species, which dominate.

If the land within the proposed corridor does not retain its rural character and development pressure grows, existing wildlife habitat will become increasingly fragmented. Securing a continuous corridor in public ownership would greatly benefit wildlife, both their habitat and movements. Some wildlife may be disturbed during the initial construction of the trail, and afterward when people are hiking it. This disturbance is short term, and the overall pattern of wildlife use of the area would not change. Most wildlife would become accustomed to the occasional presence of hikers. It has been the experience of the Ice Age NST that users are concerned and aware of the natural environment surrounding the trail, and take great precautions to preserve and protect it.

Under the No Action alternative, attaining a continuous, permanently protected trailway would be unlikely. Without a continuous trailway, and if development pressures increase, existing wildlife habitat will become increasingly fragmented. This fragmentation will cause sensitive species to decrease and edge species to increase, thereby adversely affecting biodiversity.

## Fisheries

Under both alternatives, impacts to fisheries can be mitigated to a negligible level. With proper and effective trail design, erosion control during construction, proper placement of water crossings, etc., it is unlikely that there would be adverse impacts to the fishery resources of the area near the Ice Age NST. Proper maintenance of the trail, especially in hilly areas near surface waters, will help prevent impacts to the fishery resources due to erosion and sedimentation. This is also discussed under Water Resources.

Potential impacts to fisheries include increased sedimentation, stream bank destabilization, and increased exotic species. Under the Preferred alternative, trail developers would work with the local WDNR wildlife biologist and water regulation and zoning staff to ensure that when construction of the trail occurs, potential impacts are minimized. Under the No Action, if coordination with land managers does not occur, adverse impacts may happen.

## Threatened and Endangered Species

The National Park Service (NPS), United States Fish and Wildlife Service (USFWS), and Wisconsin Department of Natural Resources (WDNR) have a review process in place to avoid impacting threatened and endangered species with the construction of the Ice Age NST statewide including Marathon County. This process occurs in two phases. The first is a broad review of the alternative trail corridors for endangered and threatened species when the planning process is carried out. A more detailed review occurs when trail developers design a specific alignment for the trail in preparation for construction. Both reviews are coordinated with the USFWS and WDNR Bureau of Endangered Resources (BER). In constructing the trail, best management practices are also utilized. With these agreed upon processes and measures in place, the trail is

unlikely to negatively impact threatened and endangered species in Marathon County. (See Appendix D—U.S. Fish and Wildlife Correspondence)

Under the No Action alternative, lack of a planned corridor and coordination with USFWS and WDNR BER may result in unintentional adverse impacts to species and habitats.

## C. IMPACTS TO CULTURAL RESOURCES

In 2010, the NPS State Historic Preservation officer signed a Programmatic Agreement that outlines how the National Park Service will carry out their responsibilities regarding Section 106 of the National Historic Preservation Act for both the Ice Age and North Country National Scenic Trails in the State of Wisconsin. In general, there are two situations where Section 106 is triggered for both trails. They are the Corridor Planning Process and individual trail segment construction and maintenance. The agreement outlines the stipulations for meeting requirements. (See Appendix E—Programmatic Agreement between the US Department of Interior, Ice Age and North County NSTs and the Wisconsin State Historic Preservation Officer).

Nothing in this plan or its implementation is intended to modify, abrogate, or otherwise adversely affect tribal reserved or treaty-guaranteed rights.

Ideally, under the Programmatic Agreement, impacts to both alternatives would be negligible. However, under the No Action alternative, if there is no plan and trail construction occurs opportunistically, then there is a higher risk of lack of Section 106 coordination and impacts to resources.

## D. IMPACTS TO SOCIO-ECONOMIC RESOURCES

### Communities and Businesses

Establishment of the trail under both alternatives may attract users into the communities through which the trail passes. Under the Preferred alternative, additional trailheads with parking areas would be planned for and developed. Minor increases in traffic on local roads may result.

Increased public use of the area may benefit local businesses. Although the trail may attract some new commercial establishments to the local communities, a significant increase in that type of development is not expected. As awareness and use of the Ice Age NST increases, some economic benefits to existing area businesses such as grocery stores and bed & breakfast inns, may result from spending by day hikers and overnight backpackers.

Economic benefits to trailside communities may not be as great under the No Action alternative. Lack of a coordinated effort to plan the route of the trail and its' support facilities may mean losing opportunities to make important connections that would benefit the local economy.

Under both alternatives, emergency services for hikers may be necessary. The appropriate local jurisdiction will be responsible for any law enforcement or emergency responses along the trail.

## Land Use and Land Ownership

In some areas of the proposed corridor, land use will change from agricultural to conservation/recreational. This means that currently cultivated land would revert to native plant communities. The increased plant diversity and decreased use of fertilizers and pesticides in these areas would create an improved biological habitat for birds and wildlife thus having a beneficial impact.

According to the Natural Resources Conservation Service (NRCS), projects that irreversibly convert farmland to non-agricultural uses are considered subject to the Farmland Protection Policy Act. The NRCS does not consider the Ice Age NST project as an irreversible conversion of farmland and therefore its impact is negligible. Some land acquired for the trail may be leased back for agricultural purposes, preserving the existing land use.

There may be potential conflicts between trail users and neighboring agricultural management practices. For example, farmers are concerned about how and to what extent the trail and its users will impact their management practices (pesticide application, manure spreading). To address these concerns, the trailway typically provides a buffer between the trail and neighboring landowners.

Land use and ownership patterns within the proposed corridor are changing. In the northern part of the county, land that has been held in large-block industrial forest is being subdividing into smaller parcels, often for hunting purposes. The growth of residential subdivisions, especially in the Ringle and Hatley area, are also changing traditional land use patterns. Under the No Action alternative, this trend will continue with a subsequent loss of opportunities to build the trail. Completion of a permanent, continuous trailway would be difficult under the No Action alternative.

Securing lands for the trail may change current land uses but does not preclude other future uses. By protecting lands for the trail under the Preferred alternative, development is restricted and resources are protected. However, the trail maybe such an attractive and desirable resource that, although unintentional, residential development around it may increase. The Ice Age NST is a permitted use in all zoning classifications (§ 236.292 Wis. Stats).

Land acquired or protected for the trail will provide opportunities for neighbors, non-residents, and non-owners to have access to the glacial features along the trail. Some neighboring landowners are concerned about the possibility of trail users trespassing onto their lands, and the loss of privacy that may occur as a result of these users. The proposed acquisition zone of the trailway will provide a natural buffer between trail users and property owners. Signage will be used to direct use. Volunteers will monitor the trail and provide information to users to discourage inappropriate uses and activities.

## Recreation Resources

Creation of the Ice Age NST through Marathon County will not only enhance public awareness of Wisconsin's glacial landscape through interpretation of the glacial features, but it would also connect the county with an outstanding, statewide, recreational trail system. The trail would provide links to the Plover River and Little Wolf State Fishery Areas, as well as Dells of the Eau Claire and Mission Lake County Parks. It will be used primarily for hiking as well as for bird watching, interpretive walks, and snowshoeing. This countywide linkage of public lands would increase their utilization and benefit the recreation user. Statewide, as part of the 2005-2010 Wisconsin SCORP, researchers completed a survey of state and local recreation plan recommendations. From this survey, the Ice Age NST was found to be a desirable feature across the state.

The trail may impact the current recreational use, estimated at 10,000 recreation-days, primarily fishing and hunting, that are presently provided on DNR-owned lands within the proposed corridor. A positive impact is that the trail would provide better access to portions of these holdings for hikers as well as hunters and fishers and create a greater awareness of these public lands. In the 2005-2010 SCORP, "lack of access to public lands" was identified as a primary environmental barrier for increased physical activity and outdoor recreation. In the 2005-2010 SCORP, recreation compatibilities were assessed for a number of common recreation uses across the state. Through this work, it was found that hikers view hunting as an activity antagonistic to their own. From the hunter's perspective, however, hiking has a neutral, supplementary interaction with hunting. These findings suggest that hiking and hunting–as well as other potential trail uses—can be compatible given proper planning and managed user interactions.

Because the trailway will pass through local recreation lands, these areas may receive additional visitors as a result of the trail. These facilities should not be greatly affected. Some secondary impacts may occur such as litter and trespassing. These impacts will be negligible because, by its nature, the Ice Age NST is designed and managed to provide for low-impact experiences.

The projected use of the trail is difficult to estimate. Based on patterns of use on other trails it is likely that use will be highest near populated areas or existing recreation areas. In some areas, conflicts between user groups could develop. These conflicts are also difficult to predict, because perceived conflict is directly related to volume of use. Trail volunteers and local law enforcement agencies will monitor the trail as necessary.

The physical and social carrying capacities of the trail are not known and to some degree may be dependent upon the width of the trailway actually acquired, volume of use, and other factors. However, use of the Ice Age NST in other areas has not resulted in deterioration of the resource or lessened user experience.

As the trail is developed and as it becomes more widely known, users and patterns of use can be studied and monitored. Actions will be taken as necessary to resolve user conflicts or other conflicts that may develop as a result of the trail's presence.

In the case of an injury to a trail user or a fire along the trail, an emergency response may be needed. In these situations, law enforcement and medical professionals from the nearest community would be responsible for proper emergency response. The risk of such an event occurring is minimal as is the risk of environmental damage from such a response.

Under the No Action alternative, trail development may not occur in a planned fashion to connect public lands, which would be a lost opportunity and an adverse impact. Under the No Action alternative, recreational management responsibilities are the same as for the Preferred alternative. Potential impacts would therefore be the same.

## Public Health

Within the State of Wisconsin, 61 percent of adults are obese or overweight. By providing a space for active outdoor recreation, the Preferred alternative will help the state reach the 2010 Center of Disease Control (CDC) goal of only 15 percent of adults being obese/overweight. The trail corridor will also help the state meet an additional CDC goal of 30 percent of adults being physically active. SCORP 2011-2016 states that "research has linked the presence of parks, trails, enjoyable scenery, and other people exercising to increased physical activity." Under Actions 2, 3, & 4, a plan to build a continuous trail through Marathon County will help reach this goal and result in beneficial impacts. Under the No Action alternative it is very possible that the obesity/overweight trend will continue, leading to an increased incidence of Type 2 diabetes, coronary heart disease, high blood pressure, and stroke, all of which contribute to shortened life expectancies and higher costs of medical care.

## Tax Base and Fiscal Impacts

It is difficult to determine the fiscal impacts to local units of government resulting from the development of the Ice Age NST. This is because there is no way to predict what private lands will be available for future acquisition or donation on a "willing seller-buyer basis."

The State of Wisconsin's "Payments in Lieu of Taxes" (or PILT) are payments to local governments that help offset losses in property taxes due to nontaxable state lands within their boundaries. Eligibility for payment under the PILT program is reserved for local governments that provide services such as those related to public safety, environment, housing, social services, and transportation. PILT payment calculations to local governments are based upon State Statue 70:114: Aids on certain state lands equivalent to property taxes.

Currently, the Federal government provides grants to the State of Wisconsin to match funds for acquisition purposes. If the Federal government was to purchase lands, under the Federal Law U.S.C. 6901-6907, the Payment in Lieu of Taxes (PILT) Act, would authorize payments to certain units of local government with eligible Federal lands within their jurisdictions. These payments would occur under prescribed payment formulas and within amounts annually appropriated by Congress. The laws that implement these payments recognize that the inability of local governments to collect property taxes on Federally-owned land can create a financial impact. PILT payments help local governments carry out such vital services as firefighting and police protection, construction of public schools and roads, and search-and-rescue operations.

PILT payments are made annually for tax-exempt Federal lands. The Bureau of Land Management administers the program by calculating payments according to formulas established by law and distributes the funds in an equitable manner. The two basic formulas are based on population and the amount of federal land in a local jurisdiction. One formula allows $1.99 per acre. The other formula applies as follows: if property taxes were paid for the previous 5 years, 1 percent of fair market value of the property (sale price) or the amount of property taxes paid (whichever is the smaller amount).

If land is acquired by the IATA, a non-profit organization, a petition to exempt the land from property taxation could be filed. It is the current policy of the IATA to pay property taxes on all Ice Age NST lands it owns, however, this policy is subject to change.

## Land Acquisition and Trail Development

Under the No Action, development of the Ice Age NST would be opportunistic and would not identify costs associated with the development of the trail, support facilities for users, or land acquisition costs. Without a plan to optimize costs, fiscal resources would likely be used in an inefficient manner. These impacts would largely be avoided under the planned trail construction and land acquisition practices outlined in the Preferred alternative. The costs of developing the Ice Age NST under the Preferred alternative are discussed below.

### Estimated Costs of Land Acquisition

Depending on the route selected, the Ice Age NST through Marathon County is expected to be 40-45 miles in length when completed. Today there are 15 miles of trail on the ground leaving approximately 28-33 miles left to construct. It is difficult to determine the exact cost of acquiring and developing 28-33 miles of trail through Marathon County, since the trail's exact location is not known. From a cost standpoint, much of the land most appropriate for trail development is also the same land that is in highest demand for rural home sites as well as hunting lands. These rolling tracts with their high scenic character offer the types of features that command a premium price over traditional agricultural lands. Recent property sales of land in the proposed Ice Age NST corridor have been upwards of $2,200 to $3,500 per acre for 40-acre parcels. This translates to about $26,400 to $42,000 per mile for each 100 feet of average corridor width acquired. For example, assuming that 30 miles of trail would need to be developed on lands presently under private ownership, at an average corridor width of 100 feet, the total land acquisition cost would be in the range of $792,000 to $1,260,000. The table below lists approximate costs based on different trail lengths and average width scenarios. Realistically, the trailway width will vary along its entire length because its' breadth is determined by a number of factors including land use, geography and what the landowner desires.

**Table 2**

**COST OF TRAILWAY FOR ICE AGE NST**
**Assuming $2,200 to $3,500 per acre**

| Average Trailway Width | 25 Miles | 30 Miles | 35 Miles |
|---|---|---|---|
| 100 feet (12 acre/mile) | **$660,000 to $1,050,000** | **$792,000 to $1,260,000** | **$924,000 to $1,470,000** |
| 200 feet (24 acre/mile) | **$1,320,000 to $2,100,000** | **$1,584,000 to $2,520,000** | **$1,848,000 to $2,940,000** |
| 330 feet (40 acre/mile) | **$2,200,000 to $3,500,000** | **$2,640,000 to $4,200,000** | **$3,080,000 to $4,900,000** |
| 660 feet (80 acre/mile) | **$4,400,000 to $7,000,000** | **$5,280,000 to $8,400,000** | **$6,160.000 to $9,800,000** |

## Estimated Costs of Trail Development

The majority of the trail built in Marathon County will be a constructed tread composed of mineral soil. Aside from the cost of tools, volunteers will provide the labor from the Ice Age Trail Alliance. There will be steep or wet areas that the trail will cross requiring sidehill construction or surfacing such as puncheon, turnpike, or boardwalk. For example, while the exact location of the trail is unknown at this time, placing the trail through the Plover River State Fishery Area may involve the construction of between 600 and 900 feet of puncheon. At an estimated cost of $12 per linear foot, this puncheon could cost between $7,200 and $10,800. However, it should be noted that the majority of puncheon, turnpike, or boardwalk likely to be constructed would be considerably shorter, generally spanning between 10 and 75 feet.

Depending on the trail's location, one to three bridges will be required on the Marathon County segment of the Ice Age NST. Although the trail is expected to encounter several intermittent streams and/or drainage swales (6-10), none will require a significant bridge. A reasonable estimate for bridge construction costs countywide is $35,000. This estimate assumes that three new bridges will be constructed at $10,000 each, and some minor construction cost ($5,000) may be required to span smaller swales and intermittent streams.

Parking is presently available at several locations within the proposed corridor and, depending on trail location, can minimize the number of new parking lots that need to be constructed. Existing parking can be found at the Dells of the Eau Claire County Park, Poplar Lane, the Hatley Community Center, Mission Lake, and Peterson County Parks and several WDNR State Fishery Areas located along the Plover and Little Wolf Rivers.

Based on available road crossings and an approximate spacing of three to four miles between trailhead parking areas, an additional 3-4 parking areas will need to be developed. These would be designed for approximately 2-5 vehicles, with larger parking areas located on public lands that accommodate other recreational activities. A total estimated cost of $28,000 is projected for constructing and improving parking areas. This is based on an average cost of $10,000 for one large lot and $18,000 for three smaller lots. Simple information kiosks will be placed at each parking area; three are presently in place and about six additional kiosks are expected to be needed. Based on an estimated cost of $700 per unit, the total cost for the new kiosks is estimated at $4,200.

Interpretive exhibits may be placed on a few public lands that have important stories regarding glaciation or the natural resources of the site. Depending upon the complexity and number of individual panels, these exhibits may cost between $4,000 and $5,000 each. For three sites, the cost is estimated to be approximately $12,000-15,000. Possible locations include the gorge at the Dells of the Eau Claire County Park, Mission Lake County Park, and the tunnel channel at Hatley.

The only camping currently available in the proposed corridor is located at the Dells of the Eau Claire County Park on County Road Y north of Sportsman's Road. Based on the approximate spacing of 10-12 miles, at least two additional opportunities for dispersed camping will need to be established. Since dispersed camping has no amenities, purchase of the land would be the cost.

# E SUMMARY OF CUMULATIVE IMPACTS

The Ice Age NST Corridor Planning Process for Marathon County is part of the overall implementation of the trail across 30 counties. Statewide, of the projected 1,200 miles, approximately 600 miles of the trail is complete. Much of the Ice Age NST has been, and continues to be, developed on private and public property. With the continued development of the trail in other counties, there will be cumulative impacts. This section serves to summarize these impacts.

- The continued planning and development of the Ice Age NST through 30 counties will require a commitment of funds to protect lands for the trail. Funds for acquiring lands will come primarily through the Federal Land and Water Conservation Fund and the State Stewardship Program. The State Stewardship Program provides funds to acquire lands for the trail that are matched with federal and/or private dollars, and for the WDNR to acquire lands directly.

- For lands it owns in fee simple, WDNR pays aids in lieu of taxes. WDNR acquisition of lands for use by the Ice Age NST will therefore not have a tax burden on local units of government. As more lands are acquired, however, there will be an increased tax obligation to WDNR.

- Some farmland would be used as trailway for the Ice Age NST. This farmland would essentially be "banked," since the land could be returned to a natural state. This natural state would increase wildlife habitat and biodiversity over the long term. The Natural Resources Conservation Service confirmed that the Farmland Protection Policy Act covers only Federal projects that irreversibly convert farmland to non-agricultural uses.

- Establishment of the Ice Age NST will result in an increased preservation of green, open space over both the short and long term.

- Development of the Ice Age NST will provide the opportunity for families and individuals to recreate and exercise their way back to health. Americans' physical activity has reached an all time low. The National Center for Bicycling and Walking states that "Obesity, diabetes, heart disease, stress and a host of other ills are increasing. Physical inactivity and obesity rank second to smoking in their contribution to total mortality in the United States." Part of the problem is the lack of places to walk and recreate. Increasingly, in communities where there are opportunities to walk, people may not feel safe because of high motor vehicle speeds and volumes. Development of the Ice Age NST will provide a backbone for a statewide off-road trail system offering 1,200 miles of hiking trail. Those who travel on the Ice Age NST will relieve stress, better their health, and visit scenic natural spaces and recreation areas along the trail's route.

- Founded in 1958, the IATA is a non-profit organization whose primary focus is to protect, develop, and maintain the Ice Age NST. The IATA works with local trail chapters, NPS, and WDNR to assure the continuity of the trail throughout 30 counties in the State of Wisconsin. Continued development of the trail would require a greater commitment by the IATA to recruit more members to develop and maintain trailway.

- Time is an important factor in the development of the trail. The continued implementation of the Corridor Planning Process would speed up consensus on where the trail is located, as well as its acquisition and development. Given the rising values of land within the corridor, shortening the time for completion of the Ice Age NST would ultimately decrease its cost.

- Designation of this corridor in Marathon County would establish the location of the southwestern end of the trail in Langlade County and connect with the existing trail corridor in Portage County, where a 3.5-mile common boundary would be created. Since the Portage and Langlade Counties trail segments are not presently in place, flexibility would be retained in interfacing the segments.

Implementation of this plan would require the commitment of human, natural, and fiscal resources to develop and maintain the trail. This commitment is justified given the benefits to the public in terms of opportunities for recreation and education, as well as preservation of significant national and state natural resources. Because this project is a partnership project composed of Federal, State, regional, county, local, and volunteer participants, its' overall economic and management impacts are shared and therefore greatly diminish the cost to any one agency or group.

# Chapter 8
# Public Involvement, Consultation, and Coordination; and Definition of Terms

## A. PUBLIC INVOLVEMENT

There has been considerable emphasis on public involvement during this trail planning effort. As a part of this planning process, the IATA, NPS, and WDNR made numerous contacts with the public, Marathon County and the affected townships. Outlined below are the results of our contacts:

Core Team Meetings:

The Corridor Planning Process formally began on October 23, 2001 with the initial meeting of the Core Team. The purpose of the first meeting was to explain the Corridor Planning Process, discuss past efforts to establish the Ice Age NST in Marathon County, and gain an overview of the county's glacial landscape and other significant natural and cultural features. Since that time, the Core Team has met over forty times to coordinate public involvement, conduct fieldwork, and undertake other activities involved with refining the corridor, identifying potential trail routes, and assessing landowner interest.

Town and County Board Meetings:

During 2003 a series of presentations were made to the Marathon County Board and communities located within the planning area including the towns of Bevent, Harrison, Plover, Ringle, Easton, Norrie, Elderon, Franzen, Reid, and the Village of Hatley. These presentations focused on providing an overview of the Ice Age NST, discussing the Corridor Planning Process, the significant geologic features of Marathon County, and responding to questions and concerns about the project.

Public Open House Meetings—Series I:

After providing further definition to the corridor, the Core Team hosted an initial round of three Open Houses meetings. These meetings focused on obtaining input from landowners within the proposed corridor. They were held on January 24, 25, and 31, 2005, in the towns of Bevent, Plover, and Reid, respectively. Information on the meetings was distributed to all government officials potentially affected by the trail (town and county boards), and the media. Individual letters were sent to all of the landowners within the proposed corridor. About 100 people attended the three meetings. These meetings provided area landowners with an opportunity to learn about the project, gain insight on how it would impact them, and share their level of interest as potential participants. The meetings also featured presentations regarding the geologic and natural history of the area. Both written and verbal comments were collected and noted.

Post open house meetings, after reviewing both the positive and negative comments received, the Core Team determined it necessary to expand the proposed corridor to accommodate additional possible route options at its southern terminus to provide for a continuous link between Marathon and Portage Counties. This expansion area involved Sections 3, 10, 33 and 34 in the town of Franzen in Marathon County and portions of Sections 2, 3 and 4 in the town of Alban in Portage

County. In addition, after noting that the corridor immediately south of Hatley was effectively limited to the west by the Plover River, it was determined that the proposed corridor be expanded to the east near its mid-point to provide for additional area to accommodate possible route options and provide for a more scenic hiking experience (views of tunnel channel and ice walled lake plains). This second expansion included Sections 29 and 32 in the town of Norrie and Section 5 in the town of Elderon. Throughout 2006 and early 2007, landowners within the expansion areas were contacted individually by phone and/or in writing to advise them of their inclusion in the proposed corridor and to provide them with materials including background information and the status of the planning process to date.

Public Open House Meetings—Series II

A final series of open house meetings was held in August of 2007 to present the preferred corridor alternative to the public with possible route options for the trail. Some time had lapsed between the first and second series of Open House meetings. The reason for this was to identify possible route options for the trail within the preferred alternative, and individually contact some of the landowners to determine the feasibility of the route options. The second series of Open Houses was held on August 22, 25, and 29, 2007, in the town of Plover, the Village of Hatley, and the town of Franzen, respectively. Again, public officials and landowners within the proposed corridor were all invited, and the media was notified. Approximately 100 people attended. These meetings provided information about the Ice Age NST project, specific information about the possible route options, and answered questions and concerns regarding the implementation and management of the trail. Presentations were made by long-distance hikers at the Plover and Franzen meetings, and a guided geology hike offered during the Hatley meeting.

Both written and verbal comments were collected and noted. Some comments stated support for the trail, expressed interest in selling land or easements for the trail, and offered to help build some of the trail. Negative comments received were generally from landowners who did not want the trail on their property. Because of the wide nature of the "corridor of opportunity," landowners opposed to the trail can be avoided as trail alignments are developed. After reviewing all comments, it has been determined that no additional changes are needed to the preferred corridor alternative for further development of the Ice Age NST.

Local Comprehensive Planning Efforts

Throughout the planning for Marathon County, our consultant on this project from North Central Region Planning Commission was also developing comprehensive local plans for individual townships in the county. During committee meetings, he would regularly provide them with updates on the status of our planning process.

## B. CONSULTATION FOR PREPARATION OF ENVIRONMENTAL ASSESSMENT

**Agencies and individuals contacted**

Chip Brown, State Historical Society of Wisconsin
Jean Potter, Ice Age Trail Alliance
Kevin Thusius, Ice Age Trail Alliance
Randy Myren, Ice Age Trail Alliance

Joel Trick, United States Fish and Wildlife Service
Patricia Leavenworth, State Conservationist, Natural Resources Conservation Service
Kenneth Westlake, Chief, NEPA Implementation Section US. Environmental Protection Agency
Cameron Bump, Park and Recreation Specialist, Wisconsin Department of Natural Resources
Pete Wolter, Real Estate Specialist, Wisconsin Department of Natural Resources

## C. DEFINITION OF TERMS

**Biodiversity**: Biodiversity is the variety and variability among living organisms and the ecological system in which they occur on the local and regional landscape.

**Corridor of Opportunity**: A planned and mapped linear space, generally about 1 mile to 4 miles wide, but wider in some places to protect exceptional features, within which the cooperating partners are working to establish the "Trail" and a suitable "Trailway." The "Corridor" has different implications for each primary partner:

- To the WDNR, it is an area that has been delineated through a public planning process and has met State of Wisconsin environmental compliance requirements. It also represents the area within which it may (1) accept gifts of lands for dedication for the Ice Age State Scenic Trail, and (2) acquire lands for the trailway.

- To the NPS, it represents the area within which it will exercise its authorities to establish, protect, and manage the Ice Age NST. It is an area that has been delineated through a public planning process and has met Federal environmental compliance requirements. The lines defining the corridor will be treated as the "park" boundary for the trail and the limits within which Federal land acquisition authority for the trail can be exercised to create a suitable "Trailway." It also represents the area which will be considered in other planning documents such as resource management plans and land protection plans.

- To the IATA, it represents the area within which it will seek to protect or have protected a suitable "Trailway" for the Ice Age NST in order to preserve significant glacial features, construct, and develop the trail and its associated support facilities, provide an outstanding trail user experience, and manage on a sustainable basis the resources of the "Trailway". Also, see Trail and Trailway.

Rarely will the partners seek to acquire or protect the entire width of the corridor for the trail, unless it contains outstanding glacial features. The reason the corridor is wider than the trailway that will be acquired is to provide the opportunity to be flexible in working with willing landowners on a voluntary basis. (see "Trailway")

**Endangered Species**: A species on the Federal or Wisconsin Endangered Species list and whose continued existence as a viable component of the State's wild animals or wild plants is determined by the U.S. Fish and Wildlife Service or the WDNR to be in jeopardy on the basis of scientific evidence.

**Exurban**: Pockets of residential development lying beyond the suburbs of a city.

**Ice Age Trail Alliance (IATA)**: The Ice Age Trail Alliance is a non-profit Wisconsin Corporation whose mission is to create, support, and protect a thousand–mile foot trail tracing Ice Age formations across Wisconsin.

**Ice Walled Lake Plain:** Mesa-like hills that were once lakes on a melting glacier. Streams flowing on the glacier deposited loads of sediment into these lakes. When the surrounding glacier had completely melted, the lake bottoms became the hilltops.

**Kettle**: A depression formed by the melting of buried glacial ice. Some kettle holes hold water.

**Moraine:** A ridge formed by unsorted gravel, sand, and boulders carried by the glacier and deposited at the outer edge, or front, of the glacier. Some are only 10 feet high, while others rise 250 to 300 feet. Moraines define the basic route of the Trail, and can be found in many places along it.

**National Park Service (NPS):** The agency within the U.S. Department of the Interior responsible for preserving, protecting, and managing the natural, cultural, and recreational areas of the National Park System. The mission of the NPS includes two primary goals: to preserve our natural and cultural resources and to provide for public use and enjoyment of these resources in ways that will leave them unimpaired for future generations. The NPS is responsible at the Federal level for carrying out the provisions of the National Trails System Act as they relate to the Ice Age NST by coordinating, guiding, and assisting the efforts of others to acquire, develop, operate, protect, and maintain the trail. The 1983 comprehensive plan prepared by the NPS identifies the DNR and the IATA as the primary cooperators in the long-term effort to develop and manage the trail.

**Outwash**: A sloping deposit of rounded gravel and fine sand left from the ice streams flowing away from the glaciers.

**Special Concern Species**: Species about which a problem of abundance or distribution is suspected but not proven scientifically. This State classification focuses attention on species before they become threatened or endangered.

**Stewardship Fund**: A Wisconsin legislatively established fund administered by the WDNR, which provides funding for conservation and recreation programs, including matching grants to not-for-profit conservation organizations for certain projects. The Ice Age NST is one of the qualifying projects, and may receive grants for land acquisition.

**Threatened Species**: A species on the Federal or Wisconsin Threatened Species list is one which appears likely, within the foreseeable future, on the basis of scientific evidence, to become endangered.

**Trail**: The usable tread and immediate surrounding space that is maintained for the purpose of passage along the trail route. For walking only segments, this may be a *24- to 30*-inch wide tread

and an additional 2 feet of cleared space on either side. For segments where other activities are also allowed, these measurements would likely be greater. Also see Corridor of Opportunity and Trailway.

**Trailway:** The width or area of land that is managed for the purposes of the Ice Age NST. It includes the "Trail" and surrounding lands that are owned, leased, held by easement, or in some way controlled for management as part of the Ice Age NST. Generally, its width ranges from 50-1000 feet. Where the trail passes through existing public ownership or management areas, the "Trailway" is the width or area of land that the managing agency has committed to management for the trail. Also, see Corridor of Opportunity and Trail.

**Wisconsin Department of Natural Resources (WDNR)**: The state agency responsible for implementing State and Federal laws that protect and enhance Wisconsin's natural resources–its air, land, water, wildlife, fish, and plants. It coordinates the many State-administered programs that protect the environment and provides a full range of outdoor recreational opportunities for Wisconsin residents and visitors. The WDNR serves as the primary land agent for the trail utilizing monies from the State Stewardship Program and federal grants.

# APPENDICES

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# APPENDIX A. Identification of Possible Trail Routes

In addition to identifying a "Corridor of Opportunity" for the Ice Age NST, planners have found it useful and desirable to identify possible routes for the trail within the corridor. Because of the corridor's extensive width (generally 1-5 miles), identifying possible routes would focus efforts to establish the trail (time and money), and enable planners to design routes that best exemplify the trail's mission and goals. The trail was divided up into segments spanning the corridor's entire length. Again, since participation in the Ice Age NST project is voluntary, the trail's ultimate location would be determined by the willingness of landowners to sell lands or grant permission to cross their property.

To help design the alternative routes, the Ice Age NST Planning Team identified ten objectives listed below:

- Trail should provide scenic vistas
- Trail should traverse a variety of glacial features.
- Trail links other significant archeological, historical, cultural, geographical, geological, and biological sites.
- Trail utilizes public lands when possible.
- Trail traverses through a variety of plant communities.
- Trail has local landowner and town support.
- Trail avoids development in rural areas.
- Trail provides support facilities.
- Trail links to communities.
- Trail links other significant resource areas.

After the possible trail routes were developed based on the ten objectives, the desirability of each alternative could be evaluated on the basis of criteria grouped into three broad categories of concern: **trail quality**, **environmental considerations**, and **sociological considerations**.

**Trail quality** is an assessment of each proposed route from the hiker's point of view. These criteria evaluate, as objectively as possible, how well each route meets the purpose and objectives of the Ice Age NST as set forth in the National Trails System Act. The purpose of National Scenic Trail, as stated in the Act, is "to provide for maximum outdoor recreation potential and for the conservation and enjoyment of the nationally significant scenic, historic, natural, or cultural qualities of the areas through which such trails may pass" [16 U.S.C. 1242(a)(3)]. Criteria studied under **trail quality** include:

- Length – the length of each proposed route. Information was obtained from GIS digital files compiled by Marathon County.

- Road Crossings – the identification and number of road crossings. A high number of crossings may take away from the user's experience of the trail and create a greater potential for accidents.

- Diversity and Interest of Route – identifies the significant points of interest that are designed into each route to create a desirable hiking experience. Elements evaluated may include significant geologic features, the amount of trail located in the sun and shade, amount of trail located on both hills and valleys, scenic views, and visually outstanding, unique or geographically limited plant communities. Information was obtained from the Core Team members, aerial photographs, and topographic maps.

- Existing development and the probability of future development (low, moderate, high) – the level of existing development and the degree to which each route is likely to be affected by future development. Assessments of future development, while speculative, are based on extrapolations of current patterns of development. Information was obtained from recent aerial photographs, detailed topographic maps and, where available, proposed land use from local land management plans.

**Environmental considerations** are those impacts that the trail might have on the local natural resources. Information on these impacts has been gathered by questioning Federal, State and County agencies, and interested private organizations and individuals. A list of the agencies, organizations, and individuals contacted is in Section 9 of this document. Criteria studied under **environmental considerations** include:

- Construction Impacts/Number of Stream Crossings – an evaluation of each possible route based on the degree of development needed to construct the trail. The assessment is based on slope, bridge installations, potential of soil erosion or excessive compaction, and impacts to wetlands, floodplains, and fisheries. Information sources included, but were not limited to the WDNR Bureaus of Wildlife Management and Water Resources Management.

- Rare, endangered, and threatened species – identifies if a route goes through an occurrence of a plant or animal species that have been identified by the Federal or State government as being endangered or threatened. Information was obtained from the U.S. Fish and Wildlife Service, and WDNR Bureaus of Wildlife Management and Endangered Resources, and the University of Wisconsin's environmental, biology, and natural resources experts.

**Sociological considerations** are those impacts that the trail might have on the local human environment, affected landowners, and communities through which the trail may pass. Criteria studied under **sociological considerations** include:

- Number of affected landowners – the number of landowners whose property might be crossed by each route.
- Percentage of public land utilized – the percentage of public lands crossed in relation to the total length of the possible route.
- Secondary benefits – potential positive outcomes resulting from the development of the trail through an area that affect public access, natural resource preservation or enhancement, or economic resources. Information was obtained from local officials, University of Wisconsin staff, local chapters of the Ice Age Trail Alliance, and landowners.

**What it means if a possible trail route option goes through your property**: Participation by landowners in the Ice Age NST project is voluntary. Planners recognize that actual trail placement will be modified due to the need for landowner acceptance and land-use constraints. The next section provides a summary of each possible route.

## DESCRIPTION AND ANALYSIS OF POSSIBLE TRAIL ROUTES

### TABLE 1– Possible Trail Routes, Section #1 From Langlade County Line to Dells of the Eau Claire County Park

| Trail Quality | 1A | 1B* | 1C* | 1D* |
|---|---|---|---|---|
| Approx. Segment Length (miles) | 7.36 | 5.91 | 6.38 | 2.07 |
| Road Crossings | 3 Total<br>1- State Hiwy (52)<br>2- Town Roads | 3 Total<br>1- State Hiwy (52)<br>2- Town Roads | 3 Total<br>1- State Hwy (52) 2- Town Roads | 1 Total<br>1- Town Road |
| Diversity and Interest of Route | The land cover consists of forested uplands following the Hancock Terminal Moraine. The topography is typical of that found along the terminal moraine. It approaches the location of the former Aniwa Fire Tower at its northern end, one of the highest points along this route option, and may provide views of the Eau Claire River at its southern end. | This possible route option follows the inside edge of the Hancock Terminal Moraine, where the topography is relatively flat. A large, wet, pure cedar stand is located near its northern end. This option may provide access and views of the Plover River, a class 1 Trout Stream. | The land cover consists mostly of forested uplands. This option follows the leading edge of the Almond Moraine, and traverses a tunnel channel. A pure cedar stand located within the SFA would need to be traversed via a boardwalk. It may provide access and views of the Plover River, a class 1 Trout Stream. | Land cover is forested uplands with bedrock outcroppings |
| Existing Development and Probability of Future Development | Currently there is very little development in the area. Preservation of the existing woodlands is expected in the future. | Currently there is very little development in the area. Preservation of the existing woodlands is expected in the future. | Currently there is very little development in the area. Preservation of the existing woodlands is expected in the future. | Currently there is very little development in the area. Preservation of the existing woodlands is expected in the future. |

| **Environmental Considerations** | | | | |
|---|---|---|---|---|
| Construction Impacts/Number of Stream Crossings | Trail would primarily be built on upland locations utilizing side-hill methods and native surface. One secondary trailhead may need to be constructed. | | Trail would primarily be built on upland locations utilizing side-hill methods and native surface, there is 1 small stream crossing and a short segment would need to be constructed as a boardwalk. | Trail would primarily be built on upland locations utilizing side-hill methods and native surface. |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | | | | |
| **Sociological Considerations** | | | | |
| Number of Landowners Affected | 17 | 11 | 8 | 4 |
| Landowner Interest | Several landowners located along this possible route have indicated their support for Ice Age NST | | | |
| Public Lands and Rights-of-way Used | None | 27%<br>1.59 Plover River State Fishery Area | 73%<br>4.65 Plover River State Fishery Area | None |
| Secondary Benefits | | This option incorporates an existing WDNR parking lot. | This options utilizes up to 3 existing WDNR parking areas. | |

*NOTE- Option 1B and 1C must include Option 1D

**TABLE 2— Section #2 Existing Trail Dells of the Eau Claire County Park**

| | |
|---|---|
| Trail Quality | 2 |
| Approx. Segment Length (miles) | 2.3 |
| Road Crossings | 0 |
| Diversity and Interest of Route | This route follows the Eau Claire River as it cascades over outcrops of Precambrian-age rhyolite schist. .Within the county park, the rocky gorge and forested areas contain a northern mesic forest of hemlock, sugar maple, yellow birch, and mountain maple, the historic vegetation of the area |
| Existing Development and Probability of Future Development | None. The trail traverses permanently protected county parklands, land and easements owned by the Ice Age Trail Alliance. |
| **Environmental Considerations** | |
| Construction Impacts/Number of Stream Crossings | NA-trail already exists. |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | None |
| **Sociological Considerations** | |
| Number of Landowners Affected | 3 |
| Landowner Interest | |
| Public Lands and Rights-of-way Used | 100% Dells of the Eau Claire County Park, easements |
| Secondary Benefits | Parking, water, restrooms, and camping is available at the Dells of the Eau Claire County Park. There is an additional trailhead located at the segment's southern end off County Highway Z. |

**TABLE 3– Possible Trail Route, Section #3 From the Dells of the Eau Claire Park to Existing Trail at Partridge Lane (Ringle Segment)**

| **Trail Quality** | 3A | 3B |
|---|---|---|
| Approx. Segment Length (miles) | 2.51 | 3.4 |
| Road Crossings | 1 Total<br>1- County Road | 2 Total<br>1- County Road<br>1- Town Road |
| Diversity and Interest of Route | This option closely resembles the historic route of the trail through the area. Several areas are wet, and a portion of the route follows a power line corridor, providing an opportunity to hike in a more open environment. | This option may provide a drier alternative to the historic alignment of the trail, allowing access to a small scattering of kettle ponds in the area. |
| Existing Development and Probability of Future Development | Currently there is very little development in the area. Preservation of the existing woodlands is expected in the future. | Currently there is very little development in the area. Preservation of the existing woodlands is expected in the future. |
| **Environmental Considerations** | | |
| Construction Impacts/Number of Stream Crossings | The area is poorly drained, and will require up to 3 stream crossings. | Portions of the proposed route are poorly drained, and will require up to 2 stream crossings. |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | | |
| **Sociological Considerations** | | |
| Number of Landowners Affected | 5 | 12 |
| Landowner Interest | | |
| Public Lands and Rights-of-way Used | None | None |
| Secondary Benefits | Closely Resembles historic trail alignment through area. Parking is available off Partridge Road and at County Highway Z. | Parking is available off Partridge Road and at County Highway Z. |

**TABLE 4– Section 4- Existing Ringle Segment, and alternate route**

| **Trail Quality** | 4A | 4B |
|---|---|---|
| Approx. Segment Length (miles) | 6.01<br>(4.99 plus 1.02 firelane to junction with Option # 5)<br>7.31 (6.29 plus 1.02 firelane to existing Trailhead in Ringle) | 6.08<br>(5.06 plus 1.02 firelane to junction with Option #5) |
| Road Crossings | 3 Total<br>1-County Road<br>2- Town Roads | 2 Total<br>1-County Road<br>1- Town Roads |
| Diversity and Interest of Route | This option, which has existed in this location for 30 years, follows the terminal Hancock Moraine. There are several existing benches and boardwalks in place. The Klaver Kame, named afer an early settler in the area is located along this segment. | This option, traverses the terminal moraine, it includes several small kettles and wetland areas. |
| Existing Development and Probability of Future Development | Currently, the majority of the lands through which the trail passes is owned by a single corporate landowner. This area may experience development in the future, particularly if the land is sold, owing to its proximity to the Highway 29 corridor and the city of Wausau. | Currently, there is limited development in the area, due to some wet areas and lack of direct access. The area may experience development in the future, owing to its proximity to the Highway 29 corridor and the city of Wausau. |
| **Environmental Considerations** | | |
| Construction Impacts/Number of Stream Crossings | Trail has existed in this location for 30 years and may require some upgrading in future years. | |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | | |

| **Sociological Considerations** | | |
|---|---|---|
| Number of Landowners Affected | 4 | 11 |
| Landowner Interest | | |
| Public Lands and Rights-of-way Used | 22% * 38%<br>Utilizes 1.72 of forested portion of county landfill to Ringle Trailhead (*.25 to junction with Option # 5), and 1.06 of public ROW | 28%<br>1.75 public ROW |
| Secondary Benefits | | This option would require the use of a shorter segment of the multi-use Mountain Bay State Trail. |

**TABLE 5– Section #5- Mountain Bay Trail through Hatley to just south Hwy 29**

| **Trail Quality** | 5 |
|---|---|
| Approx. Segment Length (miles) | 3.65 |
| Road Crossings | 2-Total (to Hatley)<br>1-County Road<br>1- Town Road |
| Diversity and Interest of Route | This segment utilizes the Mountain Bay State Trail, a multi-use trail constructed on a former RR bed through a Tunnel Channel. Portions are located along existing sidewalks in the Village of Hatley. The trail route utilizes a recently constructed pedestrian friendly highway overpass to cross Highway 29. An unobstructed view through an impressive Tunnel Channel is available from the overpass. |
| Existing Development and Probability of Future Development | While the immediate area may experience future development, the existing route will not be effected. |
| **Environmental Considerations** | |
| Construction Impacts/Number of Stream Crossings | None, this option utilizes existing State Trail, sidewalks, and pedestrian-friendly highway overpass. |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | |
| **Sociological Considerations** | |
| Number of Landowners Affected | None, this option utilizes existing State Trail, and public right-of-way. |
| Landowner Interest | |
| Public Lands and Rights-of-way Used | 100%<br>1.62 Mountain Bay State Trail, sidewalks within the Village of Hatley. |
| Secondary Benefits | A newly developed trailhead is located at the Village of Hatley Community Center adjacent to the Mountain Bay State Trail providing visibility and access for the village's population and users of this multi-county, multi-use state trail. |

**TABLE 6– Possible Trail Route, Section #6 from Hatley to Lost Lake.**

| Trail Quality | 6A | 6B | 6C |
|---|---|---|---|
| Approx. Segment Length (miles) | 2.743 | 4.03 | 1.29 |
| Road Crossings | 5- Total<br>2-County Roads<br>3- Town Roads | 1-Total<br>1 *Town Road | None |
| Diversity and Interest of Route | This route follows the leading edge of the Almond Moraine before turning east to Lost Lake, a classic kettle lake. Land cover is predominantly agricultural. | This route provide access to one of the area's major geologic feature, a tunnel channel through the Almond Moraine. As elevation is gained, the route provides for views across the Tunnel Channel. Land cover is predominantly wooded uplands. The segment terminates at Lost Lake, a classic kettle lake. | This option incorporates several small ice-walled lake plains |
| Existing Development and Probability of Future Development | Scattered Residential development exists, including several homes located on the western edge of Lost Lake. Future development is anticipated, particularly along the Plover River and County Highway Y. | As the Village of Haltey grows, it is likely that the wooded elevations could become desirable as home sites. Several homes already exist along the shores of Lost Lake. | Scattered residential development exists in the area, however, there is limited road access at this time. |
| **Environmental Considerations** | | | |
| Construction Impacts/Number of Stream Crossings | | Trail would be built primarily on uplands using sustainable construction methods. | |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | | | |

| **Sociological Considerations** | | | |
|---|---|---|---|
| Number of Landowners Affected | 19 | 11 | 6 |
| Landowner Interest | | | |
| Public Lands and Rights-of-way Used | 34%<br>.93 of this route options follows County Highway Y, and a low volume residential road. There is a small public access site is located at Lost Lake. | 20%<br>.82 Sidewalks will be utilized within the developed area of Hatley. A small public access site is located at Lost Lake. | None |
| Secondary Benefits | At Lost Lake there may be an opportunity to permanently protect much of the remaining lakeshore from development. | At Lost Lake there may be an opportunity to permanently protect much of the remaining lakeshore from development. It may be possible to develop a spur trail from the public access site at nearby Bass Lake. | This option provides an opportunity to connect 6A and 6B |

**TABLE 7– Possible Route Options, Sectiont #7- Lost Lake to Mission Lake**

| Trail Quality | 7A | 7B | 7C |
|---|---|---|---|
| Approx. Segment Length (miles) | 7.05 | 6.41 | 1.04 |
| Road Crossings | 5 Total<br>2- County Roads<br>3- Town Roads | 4 Total<br>4- Town Roads | 1 Total<br>1- County Road |
| Diversity and Interest of Route | This route option generally follows the leading edge of the Almond Moraine and provides for views of the Plover River before reaching Mission Lake. This option bypasses both Rice Lake and Pike Lake | This option traverses a landscape which includes extensive wetland areas. It provides for a connection between Lost Lake, Rice lake, Pike Lake, and Mission Lake. | This short option provides an opportunity to join segments 7A and & 7B, providing access to Pike Lake and the Plover River, respectively. |
| Existing Development and Probability of Future Development | Scattered Residential development exists. Future development is anticipated, particularly along the Plover River and County Highway Y. | Pike Lake has a long history of development, with a well-established community along its shores. Development in the area is continuing, particularly along County Highway Y | |
| **Environmental Considerations** | | | |
| Construction Impacts/Number of Stream Crossings | This option would involve 2 stream crossings and may require the construction of a secondary trailhead. | Portions of this route contain wetlands and a small stream which may require the construction of a bridge and boardwalks. | |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | | | |

| **Sociological Considerations** | | | |
|---|---|---|---|
| Number of Landowners Affected | 25 | 15 | 2 |
| Landowner Interrest | | | |
| Public Lands and Rights-of-way Used | 5% .35 within Mission Lake County Park. A small public access site is located at Lost Lake. | 18% A small public access site is located at Lost Lake. .25 of the proposed route follows County Highway Y ,and .89 adjoins low volume access roads, including access road around Pike Lake. | 45% .47 of the proposed route follows a low volume residential access road around Pike Lake. |
| Secondary Benefits | Lands purchased for the trail may provide ecological benefits to the Plover River. | | |

**TABLE 8– Possible Route Options, Segment #8 Mission Lake to Little Wolf River at River Drive**

| Trail Quality | 8A* | 8B* | 8C* | 8D* |
|---|---|---|---|---|
| Approx. Segment Length (miles) | 4.73 | 5.83 | 1.75 | 0.92 |
| Road Crossings | 4 Total<br>1- State Hwy (153)<br>1- County Road<br>2- Town Roads | 4 Total<br>1- State Hwy (153)<br>3- Town Roads | None | None |
| Diversity and Interest of Route | This route options traverses the area between the Almond and Elderon Moraines | This route options traverses the area between the Almond and Elderon Moraines | This option provides for a connection between options 8A and 8B. It traverses some interesting topography of the Elderon Moraine. | This options follows the Little Wolf River, providing for a connection between options 8A and 8B. It incorporates and existing bridge which may be used to cross the river. |
| Existing Development and Probability of Future Development | Currently there is very little development in the area. Preservation of existing land use expected in the future. | Currently there is very little development in the area. Preservation of existing land use expected in the future. | Currently there is very little development in the area. Preservation of existing land use expected in the future. | Currently there is very little development in the area. Preservation of existing land use expected in the future. |
| **Environmental Considerations** | | | | |
| Construction Impacts/Number of Stream Crossings | This option involves 1 stream crossing in addition to an existing bridge over the Little Wolfe River at River Road. | This option involves 3 stream crossings, including one at the Little Wolf River south of River Road. | | |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | | | | |

| **Sociological Considerations** | | | | |
|---|---|---|---|---|
| Number of Landowners Affected | 16 | 19 | 7 | 2 |
| Landowner Interest | | | | |
| Public Lands and Rights-of-way Used | None | None | None | None |
| Secondary Benefits | Lands purchased for the trail may provide ecological benefits to the Little Wolf River and it's tributaries. | Lands purchased for the trail may provide ecological benefits to the Little Wolf River and it's tributaries. | Lands purchased for the trail may provide ecological benefits to the Little Wolf River and it's tributaries. | Lands purchased for the trail may provide ecological benefits to the Little Wolf River and it's tributaries. |

*Both Options 8C and 8D incorporate sections of either Option 8A and/or 8B.

**TABLE 9– Possible Route Options, Segment #9 River Drive to approved Portage County Corridor.**

| Trail Quality | 9A * | 9B | 9C* | 9D * |
|---|---|---|---|---|
| Approx. Segment Length (miles) | 6.21 | 5.94 | 2.84 | 2.86 |
| Road Crossings | 6 Total<br>1- State Hwy (49)<br>1- County Road<br>4- Town Roads | 4 Total<br>2- County Roads<br>2- Town Roads | None | 2 Total<br>1- State Hwy (49)<br>1- Town Road |
| Diversity and Interest of Route | Traverses a series of wooded ridges and includes an outstanding valley view. Landforms traversed are considered to be an excellent example of stagnant-ice topography. Provides for connection to proposed routes in Portage County via a public road around the north side of Penny Lake with lake views. | Passes through the community of Galloway. Connects directly to WDNR property across Portage/Marathon County Line | Provides for connection between options 9A and 9C including access to Galloway from route 9A and views of Stenson Lake, utilizes old RR bed. | Provides for connection to proposed routes in Portage County via a public road around the south side of Penny Lake with lake views. |
| Existing Development and Probability of Future Development | Currently there is very little development in the area. Preservation of existing land use expected in the future. | Currently there is very little development in the area, however there may be some additional development near Galloway. Preservation of existing land use beyond Galloway is expected in the future. | Currently there is very little development in the area, however there may be some additional development near Galloway. Preservation of existing land use beyond Galloway is expected in the future. | Much of the lakefront access around Three Lakes had been developed, there is a possibility of additional development in the future. |

| **Environmental Considerations** | | | | |
|---|---|---|---|---|
| Construction Impacts/Number of Stream Crossings | This options would require 1 stream crossing and may require the construction of a secondary trailhead. | | Would require construction of bridge across the Little Wolf River in Portage County and possibly the construction of a secondary trailhead. | This option would require 1 stream crossing in Marathon County and the construction of a bridge over Klondike Creek in Portage County. |
| Endangered, Threatened, or Special Concern Species Identified by USFWS or WDNR BER | | | | |
| **Sociological Considerations** | | | | |
| Number of Landowners Affected | 15 | 22 | 9 | 4 |
| Landowner Interest | | | | |
| Public Lands and Rights-of-way Used | 5%<br>.3 on north Tree Lake access route, includes Peterson County Park. | None | None | 44%<br>1.27 on south Tree Lake access road, includes Peterson County Park and Boat Launch. |
| Secondary Benefits | Would provide residents of Three Lakes with additional recreational opportunities. Lands puchased for the trail may provide ecological benefits to the Little Wolf River and it's tributaries. | Lands purchased for the trail may provide ecological benefits to the Little Wolf River and it's tributaries. | Lands purchased for the trail may provide ecological benefits to the Little Wolf River and it's tributaries. | Would provide residents of Three Lakes with additional recreational opportunities. |

* Option 9D would include first ------ miles of Option 9A
* Option 9C would incorporate portions of 9A and/or 9B.

## Map 1

The northern portion of the proposed Ice Age National Scenic Trial (NST) "Corridor of Opportunity" begins at the Langlade County line in the Town of Harrison. It heads southwest following the Hancock and Almond Moraines. Both moraines are ridges formed by unsorted gravel, sand, and boulders carried by the glacier and deposited at various times along its outer edge, with the Hancock Moraine being the older of the two. In most areas the fronts of these moraines are steep, the tops hummocky and boulders are common on the surface. The Plover River flows between the moraines as the Eau Claire River winds along the face of the Hancock Moraine to the west. Each river provides important wildlife habitat and offers outstanding recreational opportunities, with the Plover River considered to be a Class 1 trout stream In this area, the possible route options shown for the trail include one which highlights the Hancock Moraine (Option 1A), and two which traverse the Almond Moraine through the Plover River State Fishery Area (Options 1B and 1C). All of the possible route options eventually leave the moraines west of North Pole Road in order to connect with an existing segment of the Ice Age NST which showcases the outstanding geologic features found in the Dells of the Eau Claire County Park (Option 2).

Insert MAP 1
Possible Route Options

## Map 2

A 2.3 mile segment of the Ice Age NST winds through the scenic Dells of the Eau Claire County Park and along the Eau Claire River (Option 2). Here the river cascades over outcrops of Precambrian-age mylonite, and the current strong enough to produce a series of potholes, formed by the grinding action of swirling sand and gravel. This is a popular park where swimming, camping, and hiking are enjoyed by the many people who visit. It serves as a primary trailhead for the Ice Age NST and includes several historic structures built by the Civilian Conservation Corps in the 1930's. The existing trail segment currently ends at a trailhead located immediately north of County Trunk Z. Another trail segment was historically located south of County Trunk Z, but this segment was closed several years ago because of wet conditions. One of the possible route options shown resembles the historic alignment (Option 3A), the other possible route option may provide a drier, more sustainable alternative (Option 3B). The Ringle segment of the Ice Age NST begins here at the intersection of Partridge Road and the firelane (Option 4A). Here the trail climbs for a mile returning to the top of the Hancock Moraine. Once atop the Hancock Moraine, the trail continues for more than 6 miles highlighting the terminal moraine and its typical kettle and kame topography. Even though the Ringle segment of the Ice Age NST has been on the ground for more than 30 years, it is not considered to be permanently protected, so an alternative route is being shown (Option 4B).

Insert MAP 2
Possible Route Options

## Map 3

The Ringle Segment continues south along the top of the Hancock Moraine. The Klaver Kame, named after an early settler, is located along the trail about halfway between Molebrook and Poplar Roads. The Ringle Segment currently ends at 2nd Avenue in the Town of Ringle after skirting the western edge of the County Landfill. The major geologic feature besides the Hancock Moraine in this part of the Ice Age NST "Corridor of Opportunity" is a well-defined tunnel channel which is now occupied by State Highway 29 and the Mountain Bay State Trail. This distinctive tunnel channel was created by a fast moving river under the glacier. The Mountain Bay State Trail (Option 5) provides an excellent opportunity to view the tunnel channel and take the trail into the Village of Hatley. A trailhead with available parking, a kiosk, restrooms, and water is located at the Hatley Community Center. Following sidewalks through town, the proposed route option utilizes a pedestrian-friendly overpass to cross State Highway 29. Moving south from Hatley, the landscape becomes more agricultural in nature, with woodlands being found predominantly in those areas which are too steep or wet to farm. Here one possible route option for the trail follows the leading edge of the Almond Moraine (Option 6A), and another passes through the tunnel channel then turns south following the back side of the moraine (Option 6B). Both options converge at Lost Lake, an excellent example of a kettle lake before diverging once again and heading south.

Insert Map 3
Possible Route Options

# Map 4

Moving south from Lost Lake, one possible route option (Option 7A) generally follows the front edge of the Almond Moraine and the Plover River, and includes an opportunity for a connection to Pike Lake, where limited services such as food and supplies are available (Option 7C). The second option follows the top of the Almond Moraine and connects a series of kettle lakes; Lost Lake, Rice Lake, Pike Lake, and Mission Lake (Option 7B). Both of these possible route options converge at Mission Lake County Park. This 113-acre park is one of the most popular parks in the county and includes a boat launch, beach, picnic shelter, and playground. It also provides ample parking, restrooms, and water and could serve as a trailhead. Leaving the park, the possible route options move from the Almond Moraine to the Elderon Moraine (Options 8A, 8B, and 8C). The formation of the Elderon Moraine differed from the Hancock and Almond Moraines resulting in a series of narrow discontinuous ridges lacking broad areas of hummocky topography, tunnel channels, and ice-walled lake plains. Many of the streams which begin at or near the base of the Almond Moraine actually flow southeast through the many interrupted sections of the Elderon Moraine to join the Little Wolf River.

Insert MAP 4
Possible Route Options

# Map 5

Completing the transition between the Almond and Elderon Moraines, the Ice Age NST "Corridor of Opportunity" continues southeast towards Portage County and its approved corridor. The possible route options of the transition diverge immediately south of River Road, having crossed the Little Wolf River (Option 8D). Here the sandy soil is ideal for growing potatoes. The western possible route option (Option 9A and 9D) traverses a series of ridges, which are individual segments of the Elderon Moraine, offering views of the surrounding countryside, and an opportunity to connect to Galloway (Option 9C). In order to provide additional, safe options for routing the trail into Portage County, a slight expansion of the existing Portage County corridor to the west is being proposed. This expansion is bounded by Saumer Road, County Road A and Bobsiding Road. The western possible route options enter Portage County near the Community of Three Lakes, and Peterson County Park, where parking, restrooms, and water are available. The eastern possible route option (Option 9B) also incorporates the interrupted sections of the Elderon Moraine, passing through Galloway on route to the Little Wolf River State Fishery Area in Portage County.

Insert MAP 5
Possible Route Options

# APPENDIX B:
# TRAIL DEVELOPMENT AND MANAGEMENT STANDARDS

This section provides guidance on a variety of trail issues for planners and developers of the Ice Age NST across the state. For each individual trail segment, the managing authority will make the final development and management decisions. The *Ice Age National Scenic Trail: A Handbook for Trail Design, Construction and Maintenance* provides information regarding trail development and management standards. It can be obtained from the National Park Service, Madison (Wisconsin) Trails Office upon request.

The way in which the Ice Age NST is designed, developed and maintained should make it easily recognizable as a National Scenic Trail (NST). The 1966 Department of Interior report, "Trails for America," which helped set the stage for eventual passage of the National Trails System Act two years later, described NSTs as very special trails: "A standard of excellence in the routing, construction, maintenance, and marking consistent with each trail's character and purpose should distinguish all national scenic trails. Each should stand out in its own right as a recreation resource of superlative quality and of physical challenge." It is important that the collective effort of the many partners involved in this project maintains the Ice Age NST's national significance and superlative qualities. The most basic way to accomplish this is to ensure that the trail is planned, established, and managed with a level of consistency over its entire length that conveys a sense of "connectedness" and continuity to the users. Quality design and construction of the trail, parking lots, and other facilities; clear and consistent signage, and timely response to problems created by storms or routine recreational use all help to maintain this consistency and foster pride in the trail. Regular cleanups of litter and a timely response to other public concerns about trail-related problems ensure that the trail will be a welcome addition to a community or area.

## A. Development

### Layout

The route of Ice Age NST generally follows the glacial features and moraines left by the Wisconsinan Glaciation. The goal of those working on the trail and of Congress in authorizing the trail is that it eventually be permanently protected. The Ice Age NST will be designed to take advantage of the recreational, scenic, educational, and cultural opportunities present along this route. The route of the trail will minimize negative impacts on natural resources, cultural resources, the human environment, and adjacent land uses. Some basic principles that are used when laying out a route include:

- Traverse a variety of glacial features that are located in a visually pleasing corridor.
- Provide for a diverse user experience by incorporating a variety of plant communities, terrain, open and enclosed spaces (e.g. forests, savannas, prairies, etc.).

- Provide vistas to broader landscapes for scenic and interpretive purposes.
- Link and protect significant biological, archeological, and geological sites.
- Connect or provide linkages to communities and other trails for recreational, environmental, and/or user support purposes.
- Obtain local landowner and town support.
- Use publicly owned land for support facilities.

Construction/Maintenance of Trail and Trail-Related Structures

The Recreational Opportunity Spectrum (ROS), developed by the U.S. Forest Service, provides a framework for defining classes of outdoor recreation environments. These classes are useful guides for trail construction and management decisions. A modified form of the ROS reflecting the recreational environment of the Ice Age NST has been adopted, resulting in three broad categories of recreation settings–urban, rural/roaded natural and semi-primitive.

- **Urban** settings are characterized by substantially urbanized and modified natural environments. Large numbers of visitors may be present, both on-site and in adjoining areas. Sections of the Ice Age NST following sidewalks through towns or on highly developed linear parkways are described as "urban."

- **Rural/Roaded Natural** settings are characterized by a more natural appearing environment with moderate evidence of human activity. Resource modification is evident but it is also harmonious with the natural environment. "Rural" settings are typically farmland or pastoral landscapes. "Roaded Natural" settings are mainly forested lands. Similar standards apply to trails being constructed through both types of settings. The majority of the Ice Age NST will pass through "Rural" and "Roaded Natural" areas including exurban and agricultural landscapes.

- **Semi-Primitive** settings are characterized by a predominately natural appearing environment of moderate to large size. Interaction between visitors is low and there is evidence of only minimal human activity. The Chequamegon National Forest and portions of the trail in Taylor and Lincoln Counties are the only places along the Ice Age NST route where the trail is planned through this type of setting.

Typically, before new trail is constructed, a site plan will be developed to guide the layout, design and maintenance of the trail and related structures. Design standards will reflect the ROS setting determination for the segment, resource considerations, and accessibility levels.

Crossing broad expanses of wetland will be avoided by careful trail planning. Where it is necessary to cross creeks, wetlands, and other seasonally wet areas, boardwalks and simple bridges will be used. Many proven designs using native material or treated timbers and boards can be found in the sources listed in *Tools of the Trail: A Bibliography on Planning, Advocating, Designing, Building, Maintaining and Managing Trails Throughout America*. In all instances, wetlands will be treated in accordance with NPS standards and guidelines and Wisconsin's Wetland Act. (See Impacts to Water Resources in Section 7 of this document).

### Signing

The trail will be marked with 2 by 6-inch vertical yellow paint blazes or small plastic markers placed on trees or posts, facing the hiker coming from either direction. Small, 3 ½-inch Ice Age NST emblems will be placed where the trail crosses minor roads and at about half-mile intervals along the trail. Large, 9-inch Ice Age NST emblems will be placed at major trailheads and major road crossings. Primary trail access points should also have informational kiosks or signs with specific information about the adjacent trail segments. Regulatory signs will be posted as needed.

### Support Facilities

Support facilities provide for hiker convenience, comfort and sanitation. These structures should be designed to harmonize with the surrounding environment and reflect the ROS determination for the trail segment. Whenever possible, parking and other support facilities will be provided in nearby communities but they may also be provided on County, State and Federal lands.

## B. Management

### Recreational Uses

The 1983 Comprehensive Plan for the Ice Age NST states that the trail is primarily intended to be a hiking trail. Travel on foot is the one use that must be provided on all segments of the trail.

Although the trail is designed primarily as a hiking trail, other compatible recreational uses are encouraged (such as photography, birdwatching, and snowshoeing). In addition, the trail will accommodate ungroomed cross country skiing on segments that are designed and constructed for this use. In general, horses and bikes are not allowed on the trail except for those sections that follow State Rail-Trails (such as the Military Ridge, Ahnapee and Tuscobia). Also, occasional travel on or across the trail with motorized vehicles by the landowner or manager for the purpose of managing and using their land is permitted.

Sections of the Ice Age NST that pass through lands open to hunting (e.g. State Wildlife Areas) will remain open to hunting. Managing authorities may choose to discourage or prohibit non-hunting use of the trail during certain game seasons. On private lands, if a landowner grants permission for trail passage either informally or through permanent easement, hunting privileges are conveyed only if stated in the agreement. Other lands which are posted "closed" to hunting will remain closed after trail development.

The National Trails System Act specifies that National Scenic Trails may not be open to motorized use by the general public. However, the 1980 amendment authorizing the Ice Age NST also specified that segments could be open to snowmobiling, where it is deemed appropriate by the managing authority responsible for the segment and the Secretary of the Interior. Like horseback riding or bicycling, limited snowmobiling opportunities are available and these are located primarily on State Rail-Trails which are included as part of the Ice Age NST route.

### Accessibility

The Ice Age NST will be designed to ensure that people with a wide range of ability levels have the opportunity to experience the significant resources that make this trail unique. At the same time, planners will strive to maintain the generally rustic character of a National Scenic Trail. To accomplish these goals, the trail will provide a range of opportunities to accommodate individuals who enjoy a challenge, as well as those who prefer easier, non-strenuous hiking.

Some segments of the trail will be fully accessible. These segments are designed to improve access for persons with mobility and vision impairments. They meet a number of specifications addressing width, passing space, surface, running slope, cross slope, edging, clear headroom, resting areas, signage and information points. Generally, these sites are usable without assistance. Multi-use trails near urban areas should be fully accessible, accommodating wheelchairs, strollers, and hikers of all abilities.

Some segments of the trail will be designed to provide a more challenging experience, while still accommodating use by individuals with disabilities. Facilities remain fully accessible, but the trail grades and surface materials may be more challenging to persons with limited mobility. Whenever possible, these segments are constructed "barrier-free" without possible impediments to movement (such as steps, waterbars, fords, stepping stones and narrow bridges). However, they offer a higher level of risk and challenge than is found in urban settings and some disabled users may need assistance.

Portions of the trail may not be accessible to people with disabilities. In some cases, the contours of the land or the natural surface of rocks present impediments which cannot be removed without causing major impacts on the environment or drastically altering the character of the trail. Other factors influencing decisions on accessibility include the protection of natural and cultural resources and the trail setting.

The Ice Age NST would provide all individuals, including individuals with disabilities, the opportunity to choose trails that provide different experiences and varying degrees of challenge and difficulty.

Law Enforcement

The Ice Age NST as a partnership endeavor, is a patchwork of ownership and managing authorities; no single entity owns and manages the entire trail. Since the WDNR is currently purchasing lands for the trail, over time they will likely own a large portion of the trailway. As lands come under their ownership, the WDNR may enter into agreements with local units of government or with the IATA for cooperative management of the trailway. State Conservation Officers have enforcement authority on all WDNR-owned lands.

Some trail segments will be on county or municipal lands and will be under the direct protection and enforcement of these local authorities. Additional trailway lands may be owned by the IATA, or may be on private lands under an easement or agreement with the IATA. Volunteers will monitor trail developed on private lands and will alert local law enforcement officials of any issues requiring their attention. The County Sheriff has jurisdiction over all lands in the county, including those used for the Ice Age NST. However, experience and research have shown that linear trails have few law enforcement problems.

The IATA stresses low impact trail use through signage, literature and public contact along the trail. Experience has shown that hikers leave very little litter and generally pack out what they pack in. Concentrations of litter normally occur near roads and other access points and are easy to monitor. If littering does occur, volunteers will clean it up during regularly scheduled trail maintenance.

# APPENDIX C:

## National Park Service
## Purpose and Significance Statement of
## the Ice Age National Scenic Trail

The mission of the National Park Service is to acquire, develop, operate, maintain, and protect through public and private partnerships, the Ice Age National Scenic Trail—a trail that meanders for approximately 1,200 miles through Wisconsin, from Potowatomi State Park in Door County to Interstate State Park in Polk County, generally following the terminal moraine and other glacial landscape features as a component of the National Trails System, for the enjoyment of present and future generations.

### Purpose Statement

The purpose of the Ice Age National Scenic Trail is:

To establish a trail within scenic areas of the Nation to provide increased outdoor recreation opportunities and promote preservation of, public access to, travel within, and enjoyment and appreciation of the nation scenic and historic resources.

To provide for maximum outdoor recreation potential and for the conservation and enjoyment of nationally significant scenic, historic, natural, and cultural qualities through which the trail passes.

To provide a superlative hiking facility and experience consistent with preserving the landscape in which the trail is established.

To encourage and assist volunteer citizen involvement in the planning, development, maintenance, and management of the trail wherever appropriate.

### Significance Statement

The Ice Age National Scenic Trail preserves outstanding landscapes and landscape features resulting from continental glaciation. Nowhere are the marks of continental glaciation upon the land more impressive than in Wisconsin. Indeed, the State has lent its name to the most recent series of glacial advances and retreats—the Wisconsin Glaciation lasting from about 100,000 to 10,000 years ago. The meandering landscape that exhibits the marks of the glacier's furthest advance is a showplace of moraines, kames, drumlins, erractics, kettle lakes, potholes, eskers, marshes, meltwater channels, gorges, ice-walled lake plains, outwash plains, and glacial lake beds.

The Ice Age National Scenic Trail links together six of the nine units of the Ice Age National Scientific Reserve. The Reserve units contain outstanding examples of the glacial land forms found along the trail and are major nodes of interpretation of the glacial story and landscape.

The Ice Age Trail provides an opportunity to explore a slice of American landscape at a walking pace rather than at freeway speed, and a place of retreat from the hectic routine of everyday life. It exists as much for the enjoyment of the causal walker as it does for the challenge of hikers who travel its entire length, providing outstanding opportunities for recreation, education, inspiration, solitude, and enjoyment.

# APPENDIX D:

## Memorandum of Understanding Between the National Park Service, Wisconsin Department of Natural Resources, and Ice Age Trail Alliance and Vision Statement

**MEMORANDUM OF UNDERSTANDING**

**BETWEEN THE**

**NATIONAL PARK SERVICE**

**AND THE**

**WISCONSIN DEPARTMENT OF NATURAL RESOURCES**

**AND THE**

**ICE AGE TRAIL ALLIANCE, INC.**

**CONCERNING THE**

**ICE AGE NATIONAL AND STATE SCENIC TRAIL**

This agreement is made and entered into, by and between the National Park Service, hereinafter referred to as the "NPS," and the Wisconsin Department of Natural Resources, hereinafter referred to as the "DNR," and the Ice Age Trail Alliance, Inc., hereinafter referred to as the "IATA," in furtherance of the purposes of and pursuant to the powers and authorities contained in the National Trails System Act of October 2, 1968, as amended [16 U.S.C. 1241 et seq.], hereinafter referred to as the "Act," and in ss. 23.17, 23.09(2)(d)10., 23.293, and 23.295, Wisconsin Statutes. These three partners are collectively hereinafter referred to as the "Triad".

**Article I - <u>BACKGROUND AND OBJECTIVES</u>**

This agreement is for the purpose of cooperating in the completion and long-term management of the Ice Age National Scenic Trail, hereinafter referred to as the "Trail," clarifying the responsibilities of each party for the Trail and lands traversed by the Trail, including Trail lands acquired with Wisconsin Stewardship grants and Ice Age Trail dedication, pursuant to the Act and ss. 20.866(2)(tz), 23.17, 23.175, and 23.293(11) Wis. Stats. This agreement supersedes the 2004 agreement between the NPS, DNR, and IATA.

On October 3, 1980, Congress amended the Act to authorize and establish the Ice Age National Scenic Trail as a component of the National Trails System [94 Stat. 1360; 16 U.S.C. 1244(a)(10)]. The Trail meanders through Wisconsin for approximately 1,200 miles from Potawatomi State Park in Door County to Interstate State Park in Polk County, generally following the terminal moraine and other glacial landscape features. The Secretary of the Interior was assigned administrative responsibility for the Trail.

The Act provides, in Section 7(h) [16 U.S.C. 1246(h)], that when determined to be in the public interest, the Secretary of the Interior may enter into written cooperative agreements with States or their political subdivisions, landowners, private organizations, or individuals to operate, develop, and maintain any portion of a national scenic trail either within or outside a Federally-administered area. Such agreements may include provisions for limited financial assistance to encourage participation in the acquisition, protection, operation, development, or maintenance of such a trail, provisions providing volunteer in the park status (in accordance with the Volunteers in the Parks Act of 1969) to individuals, private organizations, or landowners participating in such activities, or provisions of both types.

Because the Trail involves only a small portion of Federal lands and the Act provides that the development, operation, and maintenance of the Trail shall be a cooperative venture, with special emphasis on the participation of private volunteer trail organizations, the Secretary of the Interior has determined it to be in the public interest to enter into this agreement.

The Secretary of the Interior has delegated overall administrative responsibility for the Trail to the NPS. The NPS, in cooperation with the other parties to this agreement, completed a *Comprehensive Plan for Management and Use* of the Trail in September 1983. The NPS is responsible at the Federal level for carrying out the provisions of the Act as they relate to the Trail. The NPS carries out or facilitates trail planning, environmental compliance, and land protection activities. The NPS assists other public and private partners by coordinating, guiding, and assisting their efforts to acquire, develop, operate, protect, and maintain the Trail in accordance with the comprehensive plan and any supplemental plans. The comprehensive plan identifies the DNR and the IATA as cooperators in the long-term effort to develop and manage the Trail. The NPS serves as the primary liaison with other Federal agencies in matters relating to the Trail. In carrying out this role, the NPS reviews and comments on Federal or Federally-assisted/permitted projects and activities that may affect trail segments, such as highway, utility, and other development proposals.

The DNR is the State agency responsible for providing and maintaining outdoor recreation resources of Statewide significance, including trails, in Wisconsin. The Statewide significance of the Trail, the involvement of State recreation facilities in the route of the Trail, and the relationship of the Trail to the State-administered Ice Age National Scientific Reserve form the basis for the DNR's participation in development and management of the Trail. In 1987, the State legislature formalized this role by passing legislation designating the Trail as a State Scenic Trail and assigning the DNR responsibility for coordinating the involvement of State agencies in the Trail project and cooperating with the NPS and private interests in planning, acquiring, developing, and maintaining the Trail. Other legislation has made the DNR responsible for administering financial aids to assist the IATA and others to acquire lands for the Trail. The DNR serves as the primary liaison with other State agencies in matters relating to the Trail. In carrying out this role, the DNR works with other State agencies to ensure that the trail is accommodated within the lands and programs such agencies may manage.

The IATA is a private, nonstock, nonprofit corporation composed of individual members and county chapters. The IATA was incorporated in 1958 and it then and now exists under the Wisconsin Nonstock Corporation Law. The IATA is exempt from Federal income taxation under sec. 501(c)(3) of the Internal Revenue Code, and is classified under sec. 509(a) as other than a private foundation. The mission of the IATA is to create, support, and protect a thousand-mile foot trail tracing Ice Age formations across Wisconsin. It does this primarily by organizing and coordinating local government and private sector involvement in such efforts, including fund raising and the recruitment and training of volunteer trail builders/maintainers. It has the primary responsibility to develop and encourage the growth of strong and active local volunteer chapters. The IATA serves as the primary liaison with local governmental agencies and other nonprofit conservation organizations in matters relating to the Trail. In carrying out this role, the IATA works to secure and coordinate the involvement of local government, private interests, and private sector resources in the planning, acquisition, development, operation, maintenance, and protection of the Trail.

**Article II - <u>STATEMENT OF WORK</u>**

The NPS, DNR, and IATA agree to coordinate their work to establish and manage the Trail in accordance with the attached *Vision Statement and Attributes*, and commit to carrying out various tasks relating thereto, according to the following tables:

# TRIAD ROLES

# PLANNING THE ICE AGE TRAIL

| Wisconsin DNR | National Park Service | Ice Age Trail Alliance |
|---|---|---|
| 1. Commit central office and regional staff to:<br><br>a. lead trailway planning process in selected counties<br><br>b. participate on the trailway planning and trailway protection strategy core teams in other counties<br><br>c. lead master planning on State Ice Age Trail Areas (SIATAs)<br><br>d. advise real estate staff on acquisition decisions to implement plans<br><br>e. provide technical assistance for site planning on protected lands<br><br>2. Interface the Trail with *Land Legacy Report*, Feasibility Studies, Master Plans for DNR properties, and other DNR-led projects.<br><br>3. Ensure that all DNR-led trailway planning complies with federal and state laws and regulations. Coordinate with NPS to ensure it complies with Federal | 1. Coordinate the Ice Age Trail corridor planning and trailway protection strategy processes<br><br>a. coordinate assignment of lead responsibility and timing for each county<br><br>b. monitor progress in each county<br><br>2. Commit staff to:<br><br>a. lead trailway planning and trailway protection strategy processes in selected counties<br><br>b. participate on the trailway planning and trailway protection strategy core teams in other counties<br><br>c. manage planning contracts in counties where a contract agency leads the process<br><br>d. Provide GIS mapping support<br><br>3. Ensure that all NPS-led trailway planning complies with federal and state laws and regulations. Coordinate with DNR to ensure it complies with Wisconsin | 1. Commit staff to participate on trailway planning and trailway protection strategy processes core teams.<br><br>2. Recruit volunteers to participate on trailway planning process core teams.<br><br>3. Contact landowners as part of the planning process with the guidance of the core team.<br><br>4. Enter into an NHI data sharing agreement with DNR's Endangered Resources Review program; use NHI data to inform the trail layout planning process.<br><br>5. Participate in the preliminary scoping process for counties that have not yet had trailway planning.<br><br>6. Develop chapters/constituencies where needed to support the planning process.<br><br>7. Advocate for and support the integration of the Trail into "Smart Growth" planning at the local level. |

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| requirements.<br><br>4. Provide Natural Heritage Inventory information, via an NHI data sharing agreement, to inform and guide Ice Age Trail planning efforts related to endangered resources (rare species, high-quality natural communities, and significant natural features). Provide endangered resources expertise in planning efforts.<br><br>5. Act as primary liaison with the Wisconsin Department of Transportation, especially to ensure safe highway and road crossings and access points, and to notify the other parties of projects that may affect the Trail.<br><br>6. Participate in the preliminary scoping process for counties that have not yet had trailway planning.<br><br>7. Use all appropriate opportunities to help ensure that the Trail is integrated into "Smart Growth" planning at the local level.<br><br>8. Use every available opportunity to ensure that the Trail is incorporated into all appropriate long range County Forest plans. | requirements.<br><br>4. Enter into an NHI data sharing agreement with DNR's Endangered Resources Review program; use NHI data to generate maps and other information and materials needed to inform the corridor planning process.<br><br>5. Submit request for formal Endangered Resources Review of the proposed corridor during the collection of information for the Environmental Assessment.<br><br>6. Coordinate the preliminary scoping process for counties that have not yet had trailway planning.<br><br>7. Use all appropriate opportunities to help ensure that the Trail is integrated into "Smart Growth" planning at the local level. | 8. As able, assist with on-the-ground field assessments during the planning process. |

# TRIAD ROLES

## FUNDING THE ICE AGE TRAIL

| Wisconsin DNR | National Park Service | Ice Age Trail Alliance |
|---|---|---|
| 1. Provide DNR staff support:<br><br>a. dedicated Ice Age Trail manager<br><br>b. regional staff<br>- trailway planning<br>- trail implementation<br>- land acquisition<br>- managing SIATAs<br>- technical assistance related to endangered resources<br><br>c. state trails coordinator assistance, including determining and disseminating policy guidance department-wide<br><br>d. endangered resources staff support for conducting Endangered Resources Reviews<br><br>2. Provide capital development funding for trail improvements on department lands,<br><br>3. Provide capital development grant funding | 1. Provide funding for NPS operations:<br><br>a. Ice Age NST staff and office<br><br>b. financial support to partners for operational needs via cooperative agreement<br><br>c. signing, brochures, etc.<br><br>d. technical support and assistance related to endangered resources<br><br>e. cultural resource compliance (e.g. Section 106 (of the National Historic Preservation Act of 1966) reviews and surveys)<br><br>2. Fund Challenge Cost Share projects.<br><br>3. Fund Volunteers in Parks (VIP) Program activities<br>- volunteer training<br>- awards and recognition<br>- tools and equipment<br><br>4. Utilize NPS project funds for development | 1. Provide funding for foundation operations:<br><br>a. administration<br><br>b. volunteer and chapter support<br><br>c. technical support and assistance related to endangered resources<br><br>d. programs<br>- newsletter<br>- website<br>- GIS<br>- Mobile Skills Crew<br>- Land stewardship<br><br>2. Seek congressional and legislative appropriations and private grants.<br><br>3. Provide funding for selected key acquisitions, as available.<br><br>4. Seek appropriate funding for long-term stewardship of IATA-held easements and fee lands. |

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| for trail development and facilities.<br><br>4. Provide land acquisition funding (Stewardship Program and Federal LWCF grant funds)<br><br>a. For DNR acquisitions<br>b. For grants to local governments<br>c. For grants to nonprofit conservation organizations<br><br>5. Seek accommodation of Ice Age Trail in other state or state-assisted projects and programs.<br><br>6. Provide funding for long-term stewardship of DNR-held easements and fee lands. | and maintenance projects.<br><br>5. Administer Land and Water Conservation Fund appropriations for Ice Age Trail land protection.<br><br>6. Seek increased funding through Operations Formulation System (OFS) and Project Management Information System (PMIS).<br><br>7. Seek accommodation of Ice Age Trail in other federal or federally-assisted projects and programs.<br><br>8. Provide funding for long-term stewardship of NPS-held easements and fee lands. | |

# TRIAD ROLES

## DEVELOPING, MAINTAINING, AND MANAGING THE ICE AGE TRAIL

| Wisconsin DNR | National Park Service | Ice Age Trail Alliance |
|---|---|---|
| 1. Coordinate development, maintenance, and management of the Ice Age Trail on DNR managed properties and facilitate Ice Age Trail on state properties not managed by the DNR. This should be done in accordance with Triad approved *Ice Age NST Handbook* standards. | 1. Coordinate development, maintenance, and management of the Ice Age Trail on NPS managed properties and facilitate Ice Age Trail on properties not managed by the NPS. This should be done in accordance with Triad approved *Ice Age NST Handbook* standards. | 1. Coordinate development, maintenance, and management of the Ice Age Trail on IATA managed properties and facilitate Ice Age Trail on other private lands. This should be done in accordance with Triad approved *Ice Age NST Handbook* standards. |
| 2. Provide technical assistance and materials for development, maintenance, and management on DNR owned properties where the IATA or others will develop and maintain the trail. | 2. Provide technical assistance to public and private partners in all aspects of trail planning, acquisition, development, operation, maintenance, protection, and interpretation. | 2. Provide volunteer services for Trail development and maintenance, and management of Trail lands. |
| 3. Develop a policy and process that addresses the long term management of State Ice Age Trail Areas. | 3. Participate in the development of a policy that addresses long-term management of the Trail. Depending on resources and priority, provide a Resources Management staff position for the Ice Age Trail. | 3. Build and maintain the trail in accordance with Triad approved Ice Age NST Standards Handbook. |
| 4. Allow for the development of the Ice Age Trail on State Ice Age Trail Areas in advance of a master plan for the State Ice Age Trail Area, or allow an amendment to an existing master plan that specifically addresses the Ice Age Trail on the property. The location of the Trail and the specifications for trail development shall be agreed to by the Triad. This should be | 4. Assist with the development of a policy that addresses the long-term management of State Ice Age Trail Areas.<br><br>5. Certify Trail segments and provide | 4. Identify other support for trail building and maintenance, and management of Trail lands, where volunteer support is lacking.<br><br>5. Assist with the development of a policy that addresses the long-term management of State Ice Age Trail Areas. |

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| done in accordance with Triad approved *Ice Age NST Handbook* standards.<br><br>5. Participate in the development of a policy that addresses long-term management of the Trail.<br><br>6. Submit certification applications to NPS for Trail segments on state property.<br><br>7. Host and provide GIS support facilities for the IATA GIS function.<br><br>8. Appoint a representative in each region to act as an Ice Age Trail clearinghouse for dissemination of Trail information and to help identify and coordinate additional staff resources.<br><br>9. Complete DNR required reviews and documentation for Ice Age Trail development projects on DNR lands.<br><br>10. Provide technical assistance related to endangered resources, including formal Endangered Resources Reviews, during the corridor planning and trail layout planning processes.<br><br>11. Develop camping opportunities and infrastructure improvements on state-owned lands to facilitate long-distance | official Ice Age NST markers.<br><br>6. Provide tools, materials, and other use, regulatory, directional, and trailhead signage as resources allow.<br><br>7. Develop and maintain trail geospatial and management databases and other information about the trail to support trail planning and management.<br><br>8. Recognize the IATA and its members as Volunteers-in Parks through an Agreement for Sponsored Voluntary Services, for purposes of injury compensation and protection from tort liability.<br><br>9. Complete NPS required reviews, compliance (cultural resources—Section 106, T&E Species—Section 7, etc.), and documentation for Ice Age Trail development projects.<br><br>10. Provide partners with copies of the *Ice Age NST Handbook for Trail Design, Construction & Maintenance*.<br><br>11. Provide technical assistance and training to partners for natural and cultural resource management, such as exotic plant removal and | 6. Participate in the development of a policy that addresses long-term management of the Trail.<br><br>7. Submit certification applications to NPS for Trail segments on IATA properties and other private property. Prepare certification applications for lands administered by other public partners.<br><br>8. Assist in the development and maintenance of a GIS database and produce user-oriented maps and other appropriate information.<br><br>9. Assist the DNR and NPS with completion of necessary reviews and documentation for Ice Age Trail development projects.<br><br>10. With landowner cooperation, develop camping opportunities and infrastructure improvements to facilitate long-distance hiking of the Ice Age Trail.<br><br>11. Assist partners in managing Trail lands.<br><br>12. Prepare or assist in preparing applications for needed permits relating to development of the Trail, with permission and on behalf of |

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| hiking of the Ice Age Trail.<br><br>12. DNR land managers will work with IATA staff to obtain necessary permits and meet permit requirements.<br><br>13. Provide technical assistance and training to partners for resource management practices, including exotic plant removal and the protection and enhancement of rare and endangered plants, animals, and community types.<br><br>14. Review County Forest comprehensive plans to ensure appropriate accommodations for the Ice Age Trail. | archeological artifact recognition and protection.<br><br>12. Develop camping opportunities and infrastructure improvements on NPS-owned lands to facilitate long-distance hiking of the Ice Age Trail.<br><br>13. Lead partner efforts to plan and provide for interpretation along the Trail. | responsible parties.<br><br>13. Develop camping opportunities and infrastructure improvements on IATA-owned lands to facilitate long-distance hiking of the Ice Age Trail.<br><br>14. Submit requests for formal Endangered Resources Reviews of proposed trail section layouts well in advance of planned trail construction dates. Conduct and/or coordinate follow-up actions (e.g., site visits) identified in the Endangered Resources Review.<br><br>15. Work with County Forests to establish or revise appropriate ordinances, comprehensive plans, and/or land use agreements related to the Ice Age Trail. |

# TRIAD ROLES

## PROTECTING LANDS FOR THE ICE AGE TRAIL

| Wisconsin DNR | National Park Service | Ice Age Trail Alliance |
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| 1. Lead the acquisition process. At least semi-annually, meet with NPS and IATA to discuss the status of Trail land acquisition efforts and to set or confirm priority areas.<br><br>2. Maintain a current list showing the utilization and planned utilization of all Federal funds granted to the state for Trail land acquisition.<br><br>3. Participate in the prioritization of lands to be acquired.<br><br>4. Directly acquire lands in agreed upon prioritized areas.<br><br>5. Dedicate lands under s.23.293, Wisc. Stats.<br><br>6. As requested or needed, exchange information with NPS & IATA staff concerning lands that have been or may be acquired in agreed upon priority areas or elsewhere. | 1. Administer the Special Ice Age Trail LWCF grant program. Prepare and administer grant agreements, process invoices, and monitor compliance with grant program regulations.<br><br>2. Participate in the prioritization of lands to be acquired.<br><br>3. Acquire and protect lands for the Trail to the extent it has authority to do so.<br><br>4. Provide technical and financial support to partners for land acquisition activities.<br><br>5. Periodically, as the need and opportunity arise, contact or meet with and exchange information with DNR lands staff in central and regional offices and IATA staff concerning lands that have been or may be acquired in agreed upon priority areas or elsewhere. | 1. Participate in the prioritization of lands to be acquired.<br><br>2. Serve as primary advocate at local level for trail protection.<br><br>a. Provide volunteer support to alert partners of acquisition opportunities and to aid in contacting landowners.<br><br>b. Facilitate involvement of local government partners in the protection of trailway lands.<br><br>3. Secure temporary routes through handshake or license agreements.<br><br>a. Institute and maintain a landowner registry program.<br><br>b. Institute and maintain a Land Stewardship and monitoring program<br><br>4. Advocate for Federal and state funding |

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| | | to protect lands for the Trail.<br><br>5. As funding permits, acquire lands in agreed upon prioritized lands areas.<br><br>6. Participate in the dedication of Trail lands under s.23.293, Wisc. Stats.<br><br>7. Develop policies for determining when to acquire and hold properties, taking in account long-term stewardship responsibilities and associated costs. |

# TRIAD ROLES

## PUBLIC RELATIONS FOR THE ICE AGE TRAIL

| Wisconsin DNR | National Park Service | Ice Age Trail Alliance |
|---|---|---|
| 1. Provide for public relations in appropriate DNR publications, communications, and outreach such as State Parks Visitor's Guide, press releases, internet, property maps, etc.<br><br>2. Promote the Ice Age Trail by displaying information on state properties, and providing NPS Ice Age Trail brochures and Ice Age Trail Alliance's membership brochures and other appropriate materials at visitor centers and contact stations.<br><br>3. Promote Ice Age Trail and Trail related events on the DNR website.<br><br>4. Provide interpretive programs on the Trail and the Trail's landscape.<br><br>5. Support and host Ice Age Trail events on state properties when and where appropriate.<br><br>6. Take the lead in coordinating or facilitating the involvement of other | 1. Provide a variety of promotional material or financial support for:<br><br>a. brochures<br>b. videos<br>c. wayside exhibits<br>d. maps<br>e. publications<br>f. Trail signs<br><br>2. Promote the Ice Age Trail on the NPS website.<br><br>3. Promote the Ice Age Trail in NPS publications and within the National Trails System. | 1. Produce for members and trail users:<br><br>a. Quarterly newsletter<br>b. Membership brochure<br>c. Trail maps<br>d. Trail merchandise<br><br>2. Conduct special events, such as:<br><br>a. Parade of Colors Fall Hikes<br>b. National Trails Day Events<br>c. Statewide Trail building, maintenance, or stewardship projects such as Mobile Skills Crew events.<br><br>3. Serve as primary advocate with local, state, and national media.<br><br>4. Provide easy access to Trail information. |

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| State agencies (DOT, Tourism, etc.) in marketing the Trail.<br><br>7. Include the Ice Age Trail in GIS information available to the public. | | |

**Article III - TERM OF AGREEMENT**

This MOU is executed as of the date of the last signature shown below and shall be in effect for a period not to exceed 10 years, at which time it will be subject to review, renewal, revision, or expiration. However, at the end of 5 years, the parties to this MOU will conduct an interim review of its language, tasks, and direction and make any necessary corrections as mutually agreeable.

**Article IV - KEY OFFICIALS**

The key NPS officials are the Superintendent, Ice Age and North Country National Scenic Trails, and the Manager, Ice Age National Scenic Trail, located at 700 Rayovac Drive, Suite 100, Madison, Wisconsin 53711.

The key DNR officials are the Secretary, the Division of Land Administrator, and the Director of the Bureau of Parks and Recreation, located at 101 S. Webster Street, Madison, Wisconsin 53703.

The key IATA official is Executive Director, located at 2110 Main Street, Cross Plains, Wisconsin 53528.

**Article V - TERMINATION**

This agreement may be terminated upon 60 days advance written notice given by one party to the others, or it may be terminated earlier or revised by mutual consent of all parties. Termination of this agreement does not affect any operation and maintenance agreements or responsibilities under Chapter NR 51, Wisconsin Administrative Code, or those executed separately from the provisions of NR 51.

**Article VI - STANDARD PROVISIONS**

The obligation of the NPS, DNR, and IATA to perform the responsibilities specified in this agreement is contingent upon the necessary funds being available through governmental appropriations or other sources. No legal liability on the part of the NPS, DNR, or IATA to carry out such responsibilities shall arise unless and until funds are available to cover the expenses associated with performing the responsibilities specified herein.

Additional NPS Provisions

Nothing in this agreement shall affect or interfere with fulfillment of the obligations or exercise of the authority of the NPS or any other Federal Agency to manage the lands along the Trail route (within the boundaries of areas they administer) and the programs under their jurisdiction in accordance with their basic land management responsibilities.

No member of or delegate to Congress, or resident Commissioner, shall be admitted to any share or part of this agreement, or to any benefit that may arise therefrom, but this provision shall not be construed to extend to this agreement if made with a corporation for its general benefit.

During the performance of this agreement, the participants agree to abide by the terms of Executive Order 11246 on nondiscrimination and will not discriminate against any person because of race, color, religion, sex, or national origin. The participants will take affirmative action to ensure that applicants are employed without regard to their race, color, religion, sex, or national origin.

Additional DNR Provisions

Nothing in this agreement shall affect or interfere with fulfillment of the obligations or exercise of the authority of the DNR or any other State agency to manage the lands along the Trail route (within the boundaries of areas they administer) and the programs under their jurisdiction in accordance with their basic land management responsibilities.

In connection with the performance of work under this agreement, the parties agree not to discriminate against any employee, applicant for employment, member, volunteer, or trail user because of age, race, religion, color, handicap, sex, physical condition, developmental disability as defined in s. 51.01(5), Wisc. Stats., or national origin. This provision shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay, or other forms of compensation, and selection for training, including apprenticeship. The parties further agree to take affirmative action to ensure equal employment opportunities. The parties agree to post, in a conspicuous place available for employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause.

Should the IATA at any time have paid employees working on the Trail on DNR lands, they shall furnish proof to the DNR of worker's compensation coverage in the form of a Certificate of Insurance indicating such for these individuals. The insurance policy shall contain a provision by which the insurer agrees to notify the DNR upon any lapse or change in coverage. Failure to satisfy the provisions of this paragraph will result in the voiding of this agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Memorandum of Understanding as of the last date written below.

/s/ Thomas L. Gilbert — 4/15/10
Superintendent, Ice Age National Scenic Trail, National Park Service — Date

/s/ Matthew Frank — 4/7/10
Secretary, Department of Natural Resources — Date

/s/ Michael G. Wollmer — 4/12/10
Executive Director, Ice Age Trail Alliance, Inc. — Date

Attachments:

Vision Statement and Attributes: Ice Age National and State Scenic Trail

Rev. 03-15-10

# Ice Age National and State Scenic Trail
## Vision Statement and Attributes

Ice Age Trail Park and Trail Foundation[1]
Wisconsin Department of Natural Resources
National Park Service

I. Vision Statement:

The Ice Age Trail is a continuous footpath through diverse landscapes that:

- Provides superlative outdoor recreation experiences;
- Preserves and commemorates world renowned geological features formed during the Wisconsin Glaciation;
- Provides a natural corridor that protects habitat and enables the movement of wildlife;
- Serves as a lifelong educational resource;
- Provides quiet places for people to form and nurture a spiritual connection with the landscape;
- Promotes the health and vigor of users of all ages and abilities, and
- Links the history and diverse human cultures of the land that we call Wisconsin.

II. Attributes of the Ice Age Trail:

A. **General Route**—The trail extends approximately 1,200 miles across the State of Wisconsin between Interstate State Park on the St. Croix River in Polk County and Potawatomi State Park in Door County.

B. **Glacial Features**—The trail generally follows the terminal moraine, which provides the means for a continuous trail linking many other diverse glacial landscapes. A continuous, meandering trail maximizes the number and quality of diverse glacial landscapes incorporated into the Ice Age Trail, while minimizing the additional trail length required to include such landscapes. The trail will thus deviate from the terminal moraine to connect other geological, scenic and cultural resources into the Ice Age Trail.

C. **Design of Corridor and Trail Route**—The trail and trailway are designed elements within an overall planned and approved corridor of opportunity. The design of the

1 At its annual meeting on April 25, 2009, the membership of the Ice Age Trail Alliance, Inc., voted to change their corporate name to the Ice Age Trail Alliance, Inc.

preferred trail route and trailway within the corridor is tailored to highlight regional landscape features and is intended to preserve or afford views of geologic, natural, cultural, scenic and/or biotic resources and provide a variety of educational experiences for visitors in regard to these resources.

D. **Trail Development Philosophy**—The trail lies lightly on the land. It generally follows natural contours, is constructed of local natural materials, and is a maintained pathway.

E. **Management Objectives**—The trail and the trailway are managed and maintained in order to enhance users' experiences. Trail quality, aesthetics, and vegetative management should be incorporated into the design and management of the trail and trailway. Areas with outstanding geologic or biotic features will be managed to preserve or restore those resources. Management plans and maintenance standards to achieve theses objectives will be mutually agreed upon by the trail partners.

F. **Trail Use**—The long-term goal is an off-road trail for public use on foot, providing scenic, aesthetic, educational and sensory experiences for users. The trail provides opportunity for non-consumptive recreation and a variety of challenge levels, including fully accessible segments. To provide essential connections for long-distance users, the Ice Age Trail might temporarily or permanently utilize portions of other trails that permit uses other than hiking.

G. **Trailway Width**—The width of the acquired or protected trailway varies according to the character of the landscape through which it passes, and the need to either insulate visitors from a view or expose them to it. In urban areas, the trailway may be a sidewalk or other narrow trailway. In non-urban areas, it generally will average 200-1,000 feet, with occasional wider areas to protect a significant natural/cultural feature or viewscape.

H. **Signs and Marking**—The trail is marked with a system that identifies the trail, regulates usage, provides directions and information, and interprets significant features.

I. **User Support Facilities**—The Ice Age Trail will rely to a large extent on existing parks and forests, communities, and private sector enterprises to provide many of the basic user needs, such as parking, lodging, restaurants, etc. The trail will in many instances be deliberately routed to take advantage of these amenities. In other instances, connecting trails may be developed or utilized to provide access to these amenities.

J. **Interpretation**—Major interpretation of the Ice Age and Wisconsin's glacial landscape will occur at Units of the Ice Age National Scientific Reserve, the companion project of the Ice Age National Scenic Trail. However, there are many outstanding glacial landforms and other natural and cultural resources along the trail that are deserving of and need high quality wayside exhibits or other appropriate interpretive media and programs to help trail users understand and appreciate them.

K. **Use of Roads as Connectors**—The trail may also utilize road rights of way where necessary for continuous linkage. This utilization is temporary except where roadways provide the optimum trail experience or only possible long-term connection.

L. **Intersection with Other Trails**—The Ice Age Trail will intersect or link with many other trails as it meanders across Wisconsin. New intersecting trails that allow uses other than hiking should be minimized. While such trails may allow uses other than hiking, their connections to the Ice Age Trail must be designed to prevent access of other uses onto the Ice Age Trail.

More specific guidance is found in ***Ice Age National Scenic Trail: A Handbook for Trail Design, Construction, and Maintenance***.

Agreement:

/s/ Christine Thisted White — 10/28/02
Executive Director, Ice Age Trail Alliance — Date

/s/ Darrell Bazzell — 11/8/02
Secretary, Department of Natural Resources — Date

/s/ Thomas L. Gilbert — 10/23/02
Superintendent, National Park Service — Date

# APPENDIX E:

## Programmatic Agreement between the State Historical Society of Wisconsin and the National Park Service

**Programmatic Agreement**
**Between**
**the United States Department of the Interior,**
**Ice Age and North Country National Scenic Trails,**
**and**
**the Wisconsin State Historic Preservation Office**

Regarding § 106 of the National Historic Preservation Act
and Specific Provisions of the Advisory Council on Historic Preservation's
Implementing Regulations at 36 CFR Part 800

WHEREAS, the United States Department of the Interior, National Park Service, Ice Age and North Country National Scenic Trails provide financial assistance to private organizations, municipalities, counties, state, and other Federal agencies; and

WHEREAS, National Park Service (hereinafter "NPS") has determined that with its administration of the its Ice Age and North Country National Scenic Trails (hereinafter TRAILS, undertakings may result in effects to historic properties as defined at 36 CFR § 800.16(l); and

WHEREAS, the NPS and the Advisory Council on Historic Preservation (hereinafter "ACHP") have in place a Nationwide Programmatic Agreement (hereinafter "NPA") constituting a program alternative as defined by 36 CFR § 800.14; and

WHEREAS, the NPS and the Wisconsin State Historic Preservation Officer (hereinafter "SHPO") agree that this Programmatic Agreement (hereinafter "PA") does not represent a Subsequent Agreement as described by Section IX of the NPA, but rather, this PA represents an expedited consultation process between the SHPO and the NPS, pursuant to 36 CFR § 800.3(g), and does not constitute a program alternative, per 36 CFR § 800.14; and

WHEREAS, the NPS and the SHPO agree that each has responsibilities under the National Historic Preservation Act (hereinafter "NHPA") and the ACHP implementing regulations at 36 CFR Part 800 that are neither referenced in nor incorporated into this PA; and

WHEREAS, this programmatic agreement will apply to TRAILS undertakings throughout the state of Wisconsin; and

WHEREAS, the SHPO and NPS agree that this programmatic agreement does not pertain to any undertakings pursuant to the NHPA and the ACHP's implementing regulations at 36 CFR § 800 over which a Tribal Historic Preservation Officer, established pursuant to § 101(d)(2) of the National Historic Preservation Act of 1966 and further described at 36 CFR § 800.2(c), retains jurisdiction; and

WHEREAS, the definitions given in 36 CFR Part 800.16 are applicable throughout this programmatic agreement; and

WHEREAS, "The Wisconsin NHPA § 106 Review Process" (located on the World Wide Web at: http://www.wisconsinhistory.org/hp/protecting/106_intro.asp, or such World Wide Web location as identified by the SHPO in writing to the NPS) (hereinafter "Wisconsin Process", Appendix II) is referenced in and applicable throughout this PA.

NOW, THEREFORE the NPS and the SHPO agree that the TRAILS undertakings shall be carried out in accordance with the following stipulations:

**Stipulations**

I. Personnel

A. The NPS shall designate a single staff person for each trail (hereinafter "Staff") to coordinate per the Wisconsin Process, and to be the contact point with the SHPO for all matters concerning this programmatic agreement. The Superintendent of the Ice Age and North Country National Scenic Trails is the person responsible for ensuring that all provisions of the programmatic agreement are carried out. NPS Staff has designated cultural resources professional advisors to consult with at the NPS Midwest Region office in Omaha, Nebraska.

B. The NPS shall notify the SHPO of any proposed Staff changes. If, at any time through the duration of this programmatic agreement, the NPS does not have Staff in place to carry out the review, then the NPS and the SHPO shall consult to develop alternative administrative procedures for implementing the programmatic agreement.

II. Review Process

A. A list of undertaking determined not to have the potential to affect historic properties can be found in Appendix I.

B. Corridor Planning Process -- The NPS shall consult the Wisconsin Archeological and Historical Resources Database (hereinafter "WisAHRD") and shall summarize the information derived from the WisAHRD into the specific corridor plan.

C. Construction

1. Ground-Disturbing Undertakings

a. If NPS determines through consultation of the WisAHRD or through other means, that a known archeological site is located within the project area, then the undertaking must be submitted to the SHPO for review and comments pursuant to the provisions of the Wisconsin Process.

b. The NPS shall ensure that trail construction personnel receive pertinent information derived from the WisAHRD, including specific historic property site location information, prior to any specific trail construction activity.

c. For undertakings that are not noted in Appendix I, the NPS shall carryout the provisions prescribed in the Wisconsin Process.

2. Non-Ground-Disturbing Undertakings

a. Prior to commencing any undertaking that may affect a property either listed on the NRHP or eligible for listing on the NRHP, the NPS shall comply with the provisions of the Wisconsin Process.

b. If the property within the project Area of Potential Effect (APE) is recorded in the WisAHRD and has not been formally evaluated by the SHPO, then the NPS shall apply the NRHP criteria to determine whether the property is eligible for listing on the NRHP, and shall carryout the provisions prescribed in the Wisconsin Process.

c. If a property is listed on the NRHP, or previously was determined eligible for listing on the NRHP, or is determined eligible for listing on the NRHP through NPS's evaluation, then the NPS shall continue with the project review pursuant to the terms prescribed in the Wisconsin Process.

D. The NPS shall retain comprehensive project files for all projects so that it may provide adequate documentation of these undertakings should it receive a request for such documentation. Also, this documentation shall be made available to the SHPO upon request per Part IX.

III. SHPO Review of Project Submittals

A. The SHPO shall review all project submittals pursuant to the terms outlined in this programmatic agreement and as prescribed in the Wisconsin Process.

B. If the SHPO believes that a specific undertaking may affect a property that is eligible for listing on the NRHP, then it shall notify NPS. Upon receipt of such notice from the SHPO, NPS shall review the project-specific undertaking pursuant to the terms of this PA and as described in the Wisconsin Process.

IV. Emergencies

From time to time, undertakings may be wholly or partially funded and/or carried out by or on behalf of NPS in response to natural and man-made disasters. Such undertakings may be exempt from Federal environmental review requirements, per 24 CFR 58.34(a)(10) being those instances which have been officially declared by the President

or Governor resulting in conditions which may endanger lives or threaten property eligible for the National Register of Historic Places. If the NPS shall commence an undertaking resulting from such an emergency, then 36 CFR Part 800.12 shall apply beginning with immediate SHPO notification. An accelerated consultation process should be initiated as soon as possible for undertakings implemented within 30 days of the official declaration.

V. Inadvertent Discoveries

In the event that an archeological site (2 or more artifacts) is inadvertently discovered during an undertaking, work in that location should cease and SHPO be immediately notified. Work may not continue at that location until a determination of its eligibility for the NRHP is made. Work may continue 15 meters beyond the perimeter of the site.

VI. Human Burials

In the event that a human burial site may be affected, or is discovered during project construction, the Wisconsin Burial Law, Wis. Stat. § 157.70, shall be implemented including the immediate notification of the SHPO. The Wisconsin Burial Law has no standing on, or application to, Federal land where the Native American Graves Protection and Repatriation Act (NAGPRA) would apply.

VII. Documentation

A. Documentation required by the SHPO for consultation per the provisions of this programmatic agreement may include written descriptions of the project and affected historic properties, reports demonstrating that properties are eligible for listing in the NRHP, and maps showing APEs.

B. All documentation generated for review purposes under the terms of this programmatic agreement shall meet the requirements of the Wisconsin Process and the provisions of 36 CFR Part 800.11.

C. Two copies of any archeological reports or historic property documentation generated under the terms of this PA will be provided to the SHPO for inclusion into the state-wide database.

VIII. Technical Assistance

The SHPO shall notify the NPS of training opportunities, provide technical assistance to the NPS, and help develop training for its partners in areas of mutual concern and need.

IX. Monitoring

A. The NPS shall retain documentation concerning all undertakings carried out pursuant to this programmatic agreement for a period of 3 years from project completion.

B. The NPS, when requested, shall provide the SHPO a report summarizing the undertakings carried out pursuant to this programmatic agreement.

C. After providing reasonable notice to the NPS, the SHPO may monitor specific undertakings.

D. The NPS shall make available to the SHPO upon request all historic-review related documentation for projects undertaken pursuant to the provisions of this programmatic agreement. This periodic review may be carried out to evaluate the adequacy of the provisions of this programmatic agreement and to assess NPS compliance with the terms of this programmatic agreement.

X. Other Laws, Rules, Regulations

A. No provision of this programmatic agreement, whether expressed or implied, is intended or designed to exempt either the NPS or the SHPO from their respective obligations, duties and responsibilities pursuant to any provisions of the NHPA § 106 and/or the ACHP's implementing regulations at 36 CFR Part 800 not specifically referenced herein, or the provisions of any other Federal, state, or local law, regulation, rule or ordinance not specifically referenced herein.

B. The NPS understands that it may be required to contact and/or consult with individuals, groups and/or units of government including Native American Nations or Tribes throughout the NHPA § 106 review process, consistent with and pursuant to provisions of the NHPA § 106 and the ACHP's regulations at 36 CFR Part 800 not otherwise referenced herein.

C. It is the responsibility of the NPS and the SHPO independently to recognize, understand and carry out each of their respective obligations, duties and responsibilities under the NHPA § 106 and the ACHP's regulations at 36 CFR Part 800 not otherwise referenced herein.

XI. Amendments

This programmatic agreement may be amended if the NPS and the SHPO decide in consultation that the terms need to be revised, updated or changed for any reason.

XII. Termination

A. Either the NPS or the SHPO may terminate this programmatic agreement by providing written notice describing the reason(s) for termination to the other party. This programmatic agreement shall remain in effect for 30 days from receipt of notice to terminate. The NPS and the SHPO shall consult prior to actual termination to resolve the written reasons for termination and if possible, to amend the programmatic agreement accordingly or seek other actions that would prevent termination.

B. In the event that this programmatic agreement is terminated, then NPS shall comply with the NHPA, 36 CFR Part 800 and the Wisconsin Process for any undertakings that may affect historic properties.

XIII. Sunset Provision

A. This programmatic agreement shall remain in force for 10 years from the date of the final signature unless the programmatic agreement is terminated or superseded by another programmatic agreement.

B. Within 6 months prior to the expiration of this programmatic agreement, NPS and the SHPO agree to meet to negotiate terms for a new programmatic agreement, extension of the terms of the existing programmatic agreement, or reversion to the specific provisions of the NHPA and 36 CFR Part 800.

C. If neither party objects to the other in writing, the existing agreement (all of its terms in their entirety, except for provision XIII Sunset Provision section A), shall renew and shall remain in force for a period of 2 years from the date of expiration of the existing agreement.

By: Thomas L. Gilbert Date: 8/30/10

Thomas Gilbert
Superintendent, Ice Age and North Country National Scenic Trails
National Park Service

By: Michael E. Stevens Date: Sept 2, 2010

Michael E. Stevens
Administrator, Division of Historic Preservation
Wisconsin Historical Society

# Appendix I

## Activities that do not have the potential to affect historic properties.

The following undertakings have been determined not to have the potential to affect historic properties pursuant to the ACHP's regulations at 36 CFR § 800.3 (a) (1). With respect to these undertakings, if the NPS finds reason to believe that a property may be eligible for or is listed on the National Register of Historic Places (hereinafter "NRHP"), then that individual undertaking shall be reviewed pursuant to other applicable provisions of this programmatic agreement. The NPS shall retain comprehensive project files on these undertakings so that it may provide adequate documentation should a request be received.

Certification of trail segments.

Activities associated with the layout and design of the trail, such as the use of marking tape and pin flags.

Blazing Trail: Trail marking and identification including painting on trees and affixing signs or other markers to trees.

Mowing: cutting vegetation growth to facilitate pedestrian use, including manual (scythe, slingblade) and machine (walk-behind or riding mower, tractor with mower deck, string trimmer) techniques.

Posts: Installation of posts for marking the trail (where blazing trees is not possible) or for marking property boundaries.

Fencing: Repairing of fences.

Vegetative Management: Pesticide application; prescribed burning; and the cutting, trimming, pruning, and harvesting of trees that does not involve removing stumps or roots.

Any undertaking that may disturb ground that has been disturbed previously to a greater extent than currently proposed is exempt.

Seed Bed Preparation/Prairie Planting: Restoring prairie from previously cultivated cropland and limiting the ground disturbance to the depth of the existing plow zone.

Fill placed on upland locations: Spreading of fill excavated from wetland restoration areas on upland locations, where there is no associated ground disturbing activity at the upland locations.

Undertakings that occur on "made land" of such a thickness as to preclude any reasonable undertaking from ever having the potential to impact the prehistoric resources which may lie beneath it. For example, former railroad grades or extensive fill may be considered "made land."

Actions in Hydric Soils: All actions that occur exclusively within hydric soils. Note: actions taken in wetland areas are restricted by other agencies.

Tile Breaks: Removing or disabling a section of drain tile in previously disturbed ground.

Ditch Plugs: Filling a ditch with soil that had been excavated previously from the ditch, or excavated from hydric soils.

Properties that are less than 50 years old are considered not eligible for listing on NRHP and are exempt from review under this programmatic agreement.

Undertakings that will only affect a property that is 50 years old or older but that previously (within 10 years from the date of the current project review) has been determined not eligible for listing on the NRHP are exempt from review under this programmatic agreement.

# APPENDIX F

# Correspondence

# United States Department of the Interior

NATIONAL PARK SERVICE
Ice Age and North Country
National Scenic Trails
700 Rayovac Drive, Suite 100
Madison, Wisconsin 53711

IN REPLY REFER TO:
D18(IATR)
Marathon/Langlade Counties

October 19, 2004

Ms. Patricia Leavenworth
State Conservationist
Natural Resources Conservation Service
8030 Excelsior Drive, Suite 200
Madison, Wisconsin 53717

Dear Ms. Leavenworth:

We request informal consultation with your agency to comply with the National Environmental Policy Act, as amended.

The National Park Service in cooperation with our two partners for the Ice Ace National Scenic Trail (NST), the Wisconsin Department of Natural Resources and the Ice Age Park and Trail Foundation, is conducting a planning process in Marathon and Langlade Counties, Wisconsin, to identify a corridor within which the trail will be located. The purpose of this process is to identify possible route locations for the trail, define a boundary within which Federal and State monies may be used to acquire lands for the trail, and fulfill Federal and State environmental compliance requirements. Since all participation in the Ice Age NST project is voluntary, the trail's ultimate location will be determined by the willingness of landowners to sell lands or grant permission to cross their property. Eminent domain will not be used on this project. The proposed corridor is approximately 51 miles long and 1-5 miles wide. Within this "corridor of opportunity," the partners will work to secure lands, generally 200-1,000 feet wide, on which to establish the trail. The corridor transects the eastern half of Marathon County from south to north, crossing into Langlade County in a southwest to northeast direction before joining an existing section of the Ice Age NST near Mueller Lake Town Park.

The Marathon County portion of the trail will generally follow the undulating terrain of the Hancock, Almond, and Elderon moraines deposited 10-16,000 years ago. The Langlade County portion of the trail will generally follow the Hancock and Almond moraines. The proposed corridor already contains approximately 10 miles of existing Ice Age NST that takes the hiker north from the Mountain Bay State Trail near the Ringle area through the Dells of the Eau Claire County Park. The partnership is working to connect this existing trail segment to Portage County and to the existing segment in Langlade County.

The corridor passes through or near the communities of Galloway, Bevent, Elderon, Ringle, Hatley, and Antigo. Collectively, these areas provide support facilities such as trailheads, parking, water, lodging, and phones.

Glacial remnants include the three recessional moraines which are situated in the far eastern part of the county. Other glacial elements include boulder fields, kames, lakes, potholes, and kettle ponds. The Plover River, the county's largest trout stream, also runs through the proposed corridor. The corridor contains numerous public lands and has the potential to link state fisheries areas, three county parks, including Dells of the Eau Claire County Park and State Natural Area, and several county forest units.

At this time we are gathering information on Federally-listed species within the project area. Please send us a list of species that could potentially be affected by the project. This information will be used to evaluate potential impacts of various alternatives outlined within the environmental assessment.

Enclosed are maps of the proposed corridor and existing trail that fall within the following legal description:

Marathon County:

| | |
|---|---|
| Franzen | T26N R10E, Sections 4-9, 15-17, 20-23, 25-28, 34-36 |
| Bevent | T26N R9E, Section 1 |
| Reid | T27N R9E, Sections 1-2, 11-14, 23-25, 35-36 |
| Elderon | T27N R10E, Sections 6-7, 18-19, 30-32 |
| Ringle | T28N R9E, Sections 1-2, 11-14, 22-27, 35-36 |
| Norrie | T28N R10E, Sections 6-7, 18-19, 30-31 |
| Easton | T29N R9E, Sections 12-13, 22-26, 35-36 |
| Plover | T29N R10E, Sections 1-4, 7-11, 15-19, 30-31 |
| Harrison | T30N R10E, Sections 24-26, 34-36 |

Langlade County:

| | |
|---|---|
| Rolling | T30N R11E, Sections 1-3. 8-17, 19-22, 27-33 |
| Norwood | T30N R12E, Sections 3-10, 17-18 |
| Antigo | T31N R11E, Sections 12-13, 23-27, 33-36 |
| Polar | T31N R12E, Sections 7-10, 15-22, 27-34 |

Statewide, the scope of this project consists of developing a hiking trail that generally follows the terminal and recessional moraines and other significant glacial features left by the last glacial advance some 10,000 years ago. Portions of the trail may be developed for cross-country skiing. However, uses such as horseback-riding or mountain bike-riding will not be allowed. The trail will consist primarily of a brushed footpath that is 2-4 feet in width. In sloping areas, side-hill construction will be utilized. Sapling-size trees and other understory brush will be cleared to a 4-foot width and 8-foot height. Where it is necessary to cross wetland areas, small boardwalks and bridges will be constructed. The standards that guide the development of the trail are contained in the "Ice Age National Scenic Trail Comprehensive Plan for Management and Use" and "Ice Age National Scenic Trail, A Handbook for Trail Design, Construction, and Maintenance."

We will appreciate your cooperation in this planning process and any input you can provide within your area of expertise and jurisdiction. If you have questions concerning the project, please contact Pam Schuler, Ice Age NST Manager at 608-441-5610 or pam_schuler@nps.gov.

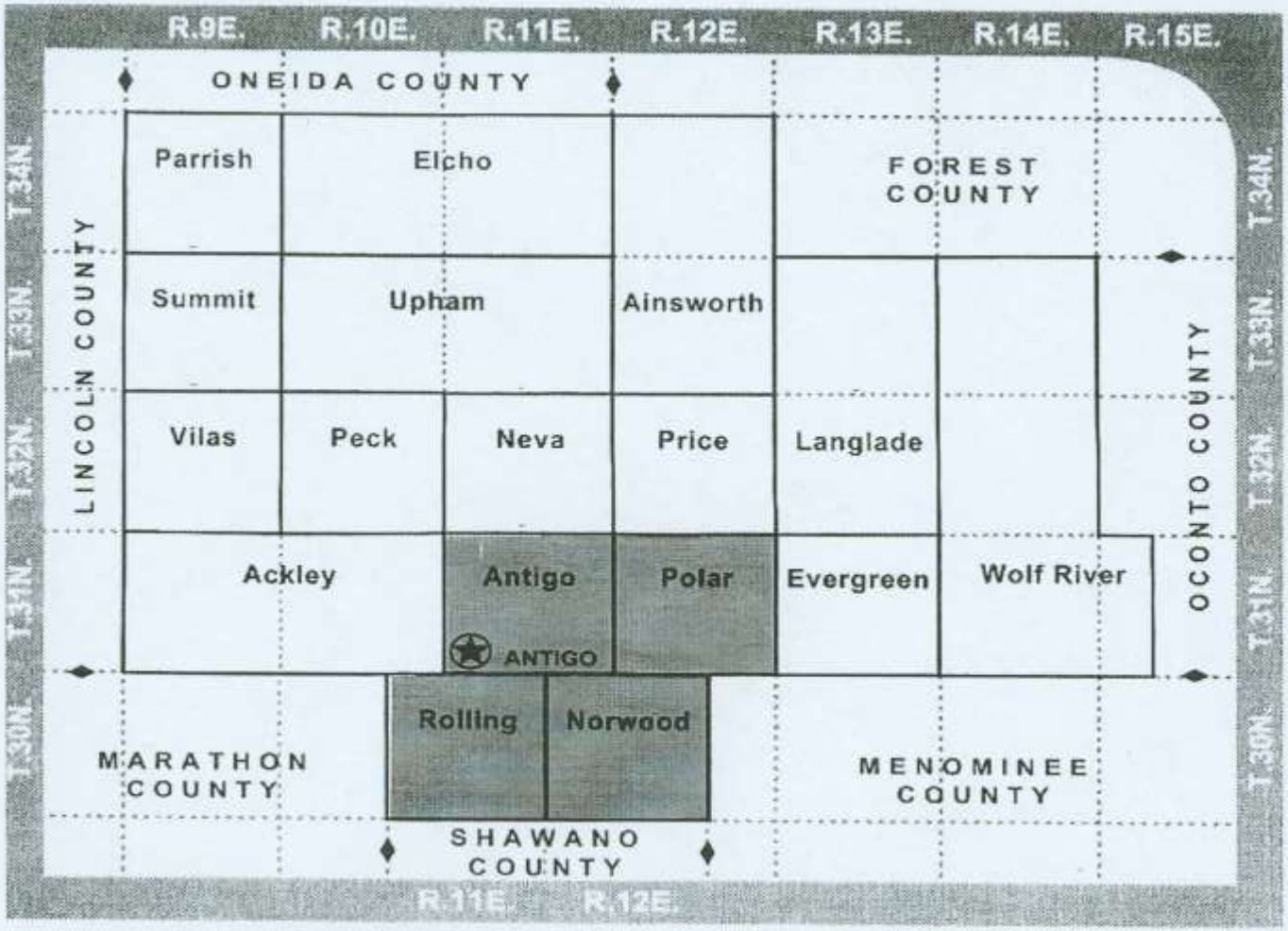
Sincerely,

Pamela J. Schuler
Acting Superintendent

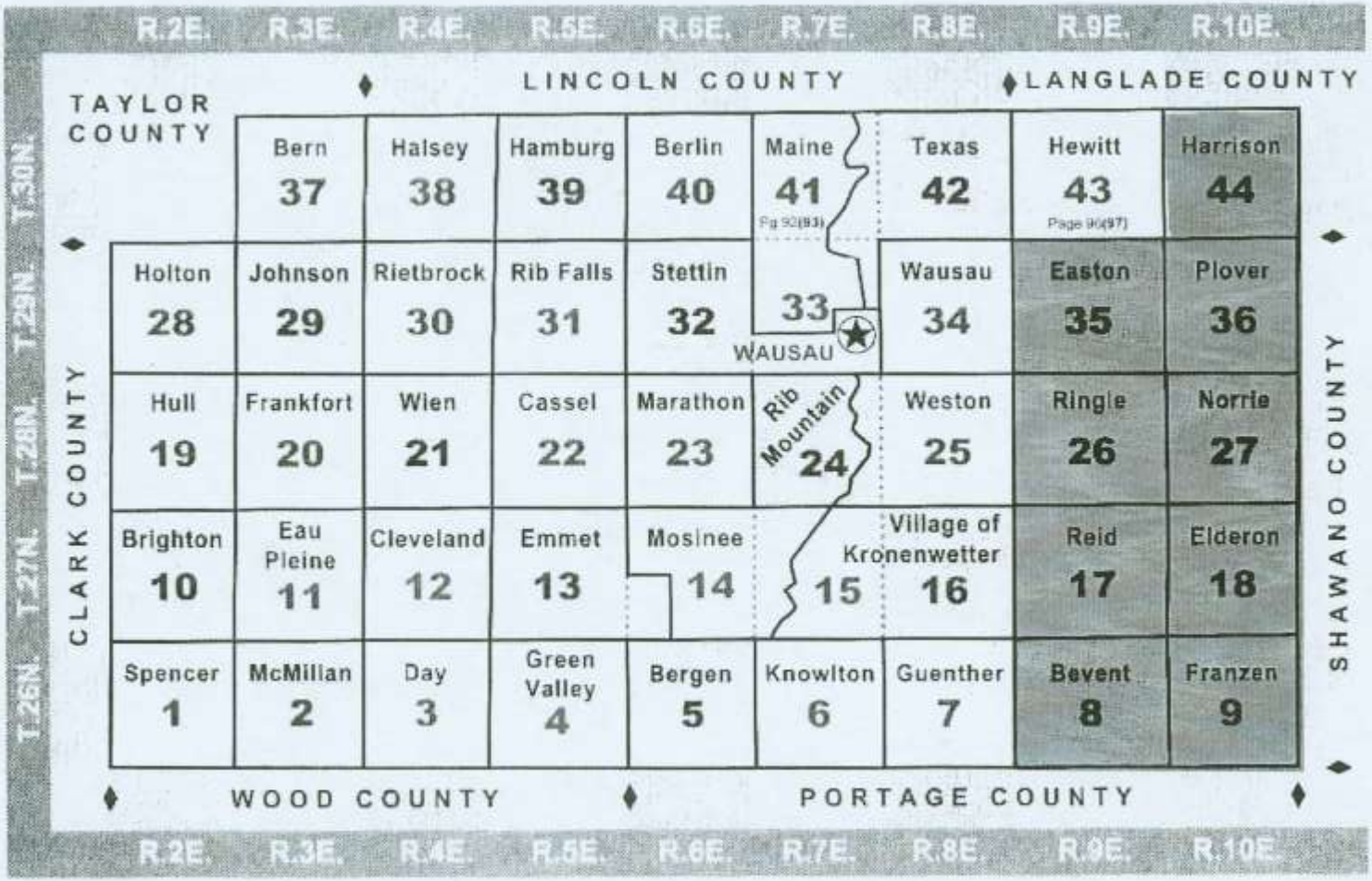
PJS:kk

Enclosures 2

# Proposed Ice Age National Scenic Trail Planning Corridor-Langlade County



# Proposed Ice Age National Scenic Trail Planning Corridor- Marathon County




Proposed Corridor

N

Also sent to:

Ms. Patricia Leavenworth
State Conservationist
natural Resources Conservation Service
8030 Excelsior Drive, Suite 200
Madison, Wisconsin 53717

Mr. Bharat Mathur
Acting Regional Administrator
Environmental Protection Agency
77 West Jackson Boulevard
Chicago, Illinois 60604

Mr. Bruce Matzke
Division Administrator
Federal Highway Administration
567 D'Onofrio Drive
Madison, Wisconsin 53719

Mr. Charlie Peters
District Chief
U.S. Geological Survey
8505 Research Way
Middleton, Wisconsin 53562-3581

Mr. Michael Pfenning
District Commander
U.S. Army Corps of Engineers
190 5th Street, East
St. Paul, Minnesota 55101-1638

Ms. Jo Rywer
Acting Deputy Director of Planning
USDA Forest Service
626 East Wisconsin Avenue, Suite 100
Milwaukee, Wisconsin 53202

United States Department of Agriculture | Forest Service | Eastern Region | 626 East Wisconsin Ave. Suite 800 Milwaukee, WI 53202

File Code: 1950/2350-3/2600-1
Date: NOV 0 2 2004

Ms. Pamela J. Schuler
Acting Superintendent
Ice Age and North Country National Scenic Trails
700 Rayovac Drive, Suite 100
Madison, Wisconsin 53711

Dear Ms. Schuler:

Thank you for your October 19, 2004 letter, requesting information for the proposed corridor for the Ice Age National Scenic Trail. Listed species information may be obtained from our website at: http://www.fs.fed.us/r9/wildlife/tes/tes_lists.htm. The corridor is adjacent to the Lakewood District, of Chequamegon-Nicolet National Forest; therefore, I have forwarded your letter to the district with a request that they provide any additional information. Future inquiries regarding federally listed species in the project area may be directed to Scott Anderson, Wildlife Biologist, Lakewood-Laona Ranger District at (715) 276-6333. The district mailing address is 15085 State Road 32, Lakewood, Wisconsin 54138. Please direct other inquiries related to this segment of the trail to Lakewood-Laona District Ranger, Harv Skjerven at the address.

If you have any questions, please contact Jim A McDonald at (414) 297-3659 or jamcdonald@fs.fed.us.

Sincerely,

Jo Reyer

JO REYER
Deputy Director, Planning & Resource Information Management

cc:
Anne Archie
Donna Hepp
John Romanowski
Joel H Skjerven
Stephen Mighton

DEPARTMENT OF THE ARMY
ST. PAUL DISTRICT, CORPS OF ENGINEERS
190 FIFTH STREET EAST
ST. PAUL, MN 55101-1638

REPLY TO
ATTENTION OF

November 22, 2004

Project Management and Development Branch
Planning, Programs and Project Management Division

SUBJECT: D18(IATR), Marathon/Langlade Counties

Ms. Pamela J. Schuler
Acting Superintendent
National Park Service
Ice Age and North Country National Scenic Trails
700 Rayovac Drive, Suite 100
Madison, Wisconsin 53711

Dear Ms. Schuler:

We are responding to your letter of October 19, 2004, concerning planning to identify a corridor for the Ice Age National Scenic Trail in Marathon and Langlade Counties, Wisconsin.

No St. Paul District real estate or current projects are located within the vicinity of the proposed trail corridor. Information on threatened and endangered species in the area can be obtained through coordination with the U.S. Fish and Wildlife Service.

You should contact the State Historic Preservation Office of the State Historical Society of Wisconsin about significant cultural resources sites in the trail corridor and whether a cultural resources survey is necessary.

The Corps of Engineers has regulatory authority over work in navigable waters under Section 10 of the River and Harbor Act of 1899 and over the discharge of dredged or fill material into waters of the United States, including wetlands and other aquatic areas, under Section 404 of the Clean Water Act. If the project includes the discharge of dredged or fill material into any water of the United States, including wetlands, a Section 404 permit would be required. The crossing of any navigable water of the United States would require a Section 10 permit. A description of any wetland or waterbody crossing should be submitted to the Regulatory Branch of the Corps of Engineers for review and determination of permit requirements. More information can be obtained from Mr. Robert J. Whiting, Chief, Regulatory Branch, St. Paul District, Corps of Engineers, 190 Fifth Street East, St. Paul, Minnesota 55101-1638, telephone (651) 290-5376.

Sincerely,

Russel K. Snyder
Project Manager

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 09 2004

REPLY TO THE ATTENTION OF:
R-19J

Pamela J. Schuler
Acting Superintendent
United States Department of the Interior
National Park Service
700 Rayovac Drive, Suite 100
Madison, Wisconsin 53711



Re: Ice Age National Scenic Trail

Dear Ms. Schuler:

Thank you for your letter dated October 19, 2004, which was received on November 23, 2004. The U.S. Environmental Protection Agency (U.S. EPA) agrees to cooperate with the National Park Service (NPS) for the Ice Age National Scenic Trail planning process, as you requested. Project proponents are attempting to identify possible route locations for the trail, define a boundary within which Federal and State monies may be used to acquire lands for the trail, as well as fulfill Federal and State environmental compliance requirements. The corridor transects the eastern half of Marathon County crossing into Langlade County before joining an existing section of the Ice Age NST near Mueller Lake Town Park.

U.S. EPA agrees to review documentation and address issues falling under our agency's jurisdiction with the expectation that the project will accurately reflect our views and concerns. This is a typical activity for our agency under Section 1501.6 of the Council on Environmental Quality's National Environmental Policy Act Implementing Regulations (40 CFR 1500-1508). U.S. EPA retains its independent review and comment function under Section 309 of the Clean Air Act. In addition, we have one tool which may be useful. The Critical Ecosystem Assessment Model evaluates the condition of Midwestern ecosystems using undeveloped land cover as of 1992. This program can be used in conjunction with other sources of information to assist in identifying a suitable corridor.

In you request letter, you asked the U.S. EPA to send a list of species that could potentially be affected by the project. Please contact the U.S. Fish and Wildlife Service, Green Bay Ecological Services Office, and the appropriate Wisconsin Department of Natural Resources office. These agencies, respectively, maintain lists of Federal and State listed threatened and endangered species and will be better suited to facilitate a full review of the effects of this project on listed species or areas designated as critical habitat.

We look forward to collaborating with the NPS on this project. My staff contact on this project is Kathleen Kowal, who can be reached at (312) 353-5206 or kowal.kathleen@epa.gov. Please do not hesitate to contact me if you need additional information.

Very truly yours,

Bharat Mathur
Acting Regional Administrator

# United States Department of the Interior

NATIONAL PARK SERVICE
Ice Age and North Country
National Scenic Trails
700 Rayovac Drive, Suite 100
Madison, Wisconsin 53711

IN REPLY REFER TO:
D18(IATR)
Marathon/Langlade Counties

October 19, 2004

Ms. Deanne Bahr
NAGPRA Contact Representative
Sac & Fox Nation of Missouri in Kansas & Nebraska
305 North Main
Reserve, Kansas 66434

Dear Ms. Bahr:

We request informal consultation with your Nation to fulfill National Park Service responsibilities under Section 106 of the National Historic Preservation Act, as amended.

The National Park Service in cooperation with our two partners for the Ice Ace National Scenic Trail (NST), the Wisconsin Department of Natural Resources and the Ice Age Park and Trail Foundation, is conducting a planning process in Marathon and Langlade Counties, Wisconsin, to identify a corridor within which the trail will be located. The purpose of this process is to identify possible route locations for the trail, define a boundary within which Federal and State monies may be used to acquire lands for the trail, and fulfill Federal and State environmental compliance requirements. Since all participation in the Ice Age NST project is voluntary, the trail's ultimate location will be determined by the willingness of landowners to sell lands or grant permission to cross their property. Eminent domain will not be used on this project. The proposed corridor is approximately 51 miles long and 1-5 miles wide. Within this "corridor of opportunity," the partners will work to secure lands, generally 200-1,000 feet wide, on which to establish the trail. The corridor transects the eastern half of Marathon County from south to north crossing into Langlade County in a southwest to northeast direction before joining an existing section of the Ice Age NST near Mueller Lake Town Park.

The Marathon County portion of the trail will generally follow the undulating terrain of the Hancock, Almond, and Elderon moraines deposited 10-16,000 years ago. The Langlade County portion of the trail will generally follow the Hancock and Almond moraines. The proposed corridor already contains approximately 10 miles of existing Ice Age NST that takes the hiker north from the Mountain Bay State Trail near the Ringle area through the Dells of the Eau Claire County Park. The partnership is working to connect this existing trail segment to Portage County and to the existing segment in Langlade County.

The corridor passes through or near the communities of Galloway, Bevent, Elderon, Ringle, Hatley, and Antigo. Collectively, these areas provide support facilities such as trailheads, parking, water, lodging, and phones.

Glacial remnants include the three recessional moraines which are situated in the far eastern part of the county. Other glacial elements include boulder fields, kames, lakes, potholes, and kettle ponds. The Plover River, the county's largest trout stream, also runs through the proposed corridor. The corridor contains numerous public lands and has the potential to link state fisheries areas, three county parks, including Dells of the Eau Claire County Park and State Natural Area, and several county forest units.

At this time we are gathering information on Federally-listed species within the project area. Please send us a list of species that could potentially be affected by the project. This information will be used to evaluate potential impacts of various alternatives outlined within the environmental assessment.

Enclosed are maps of the proposed corridor and existing trail that fall within the following legal description:

| | |
|---|---|
| Marathon County: | |
| Franzen | T26N R10E, Sections 4-9, 15-17, 20-23, 25-28, 34-36 |
| Bevent | T26N R9E, Section 1 |
| Reid | T27N R9E, Sections 1-2, 11-14, 23-25, 35-36 |
| Elderon | T27N R10E, Sections 6-7, 18-19, 30-32 |
| Ringle | T28N R9E, Sections 1-2, 11-14, 22-27, 35-36 |
| Norrie | T28N R10E, Sections 6-7, 18-19, 30-31 |
| Easton | T29N R9E, Sections 12-13, 22-26, 35-36 |
| Plover | T29N R10E, Sections 1-4, 7-11, 15-19, 30-31 |
| Harrison | T30N R10E, Sections 24-26, 34-36 |
| Langlade County: | |
| Rolling | T30N R11E, Sections 1-3. 8-17, 19-22, 27-33 |
| Norwood | T30N R12E, Sections 3-10, 17-18 |
| Antigo | T31N R11E, Sections 12-13, 23-27, 33-36 |
| Polar | T31N R12E, Sections 7-10, 15-22, 27-34 |

Statewide the scope of this project consists of developing a hiking trail that generally follows the terminal and recessional moraines and other significant glacial features left by the last glacial advance some 10,000 years ago. Portions of the trail may be developed for cross-country skiing. However, uses such as horseback-riding or mountain bike-riding will not be allowed. The trail will consist primarily of a brushed footpath that is 2-4 feet in width. In sloping areas, side-hill construction will be utilized. Sapling-size trees and other understory brush will be cleared to a 4-foot width and 8-foot height. Where it is necessary to cross wetland areas, small boardwalks and bridges will be constructed. The standards that guide the development of the trail are contained in the "Ice Age National Scenic Trail Comprehensive Plan for Management and Use," and "Ice Age National Scenic Trail, A Handbook for Trail Design, Construction, and Maintenance."

We will appreciate your cooperation in this planning process and any input you can provide within your area of expertise and jurisdiction. If you have questions concerning the project, please contact Pam Schuler, Ice Age NST Manager, at 608-441-5610 or pam_schuler@nps.gov.

Sincerely,

Pamela J. Schuler
Acting Superintendent

PJS:kk

Enclosures 2

Also Sent to:

Mr. Don Abney
Principal Chief
Sac and Fox Nation of Oklahoma
Route 2, Box 246
Stroud, Oklahoma 74079

Mr. Eugene Bigboy, Sr.
Chairman
Bad River Band of Lake Superior
Tribe of the Chippewa
P.O. Box 39
Odanah, Wisconsin 54861

Mr. Robert Chicks
President
Stockbridge Munsee Community
of Wisconsin
N8476 Mo-He-Con-Nuck Road
Bowler, Wisconsin 54416

Ms. Christina Danforth
Chairperson
Oneida Tribe of Indians of
Wisconsin
P.O. Box 365
Oneida, Wisconsin 54155

Mr. Raymond M. DePerry
Chairman
Red Cliff Band of Lake Superior
Chippewa
88385 Pike Road, Highway 13
Bayfield, Wisconsin 54814

Mr. Elmer "Jay" Emery
President
St. Croix Chippewa Indians of
Wisconsin
P.O. Box 45287
Hertel, Wisconsin 54845

Mr. Harold Frank
Chairman
Forest County Potawatomi
Community of Wisconsin
P.O. Box 340
Crandon, Wisconsin 54520

Mr. Larry Garvin
Repatriation Representative
Ho-Chunk Nation
P.O. Box 667
Black River Falls, Wisconsin
54615-0636

Ms. Sandra L. Rachal
Chairwoman
Sokaogon Chippewa Community,
Mole Lake Band
3086 State HIGHWAY 55
Crandon, Wisconsin 54520

Mr. Henry St. Germaine, Sr.
President
Lac Du Flambeau Band of Lake
Superior Chippewa
P.O. Box 67
Lac du Flambeau, Wisconsin
54538

Mr. Louis Taylor
Chairman
Lac Courte Oreilles Band of Lake
Superior Chippewa
13394 West Trepania Road,
Building 1
Hayward, Wisconsin 54843

Mr. Alex Walker
Tribal Chairman
Sac and Fox Tribe of the
Mississippi in Iowa
349 Meshwaki Road
Tama, Iowa 52339-9629

Ms. Lisa Waukau
Chairwoman
Menominee Indian Tribe of
Wisconsin
P.O. Box 910
Keshena, Wisconsin 54135

# United States Department of the Interior

NATIONAL PARK SERVICE
Ice Age and North Country
National Scenic Trails
700 Rayovac Drive, Suite 100
Madison, Wisconsin 53711

IN REPLY REFER TO:
D18 (IATR)
Marathon County

May 19, 2005

Dear Landowners and Interested Individuals:

It has been 4 months since our January 2005 Open House meetings for the proposed Marathon County Ice Age National Scenic Trail corridor and we are still receiving comments. Before too much time passes, we want to express our appreciation and thanks for your interest and taking the time to attend the meetings and/or provide written comments regarding the proposed corridor. Your comments have been very thoughtful and helpful to us. We would like to provide you with an overview of them, clarify some issues, and brief you on the next steps required to complete the planning process in Marathon County.

The purpose of the planning process and the open house meetings are to identify a general location for the trail and actively involve the public in this decision-making process. For those of you who did not attend the open houses, all were conducted in a similar manner. Maps and aerial photos of the proposed corridor were on display. Representatives from the National Park Service, Wisconsin Department of Natural Resources, Ice Age Park and Trail Foundation, North Central Wisconsin Regional Planning Commission, and Marathon County Parks Department were present to answer questions and provide additional information. Each open house featured a presentation about some aspect of the project including geology, cultural history, and natural history of the county.

The number of people who signed in at the three meetings totaled 93. Many of these people were accompanied by family or friends. Verbal comments were obtained from all interested individuals attending the open houses. A total of 14 written comments have been received to date.

During the open houses and through the comment sheets received, a number of questions and concerns were raised regarding development of the trail. Attached is a summary of the most common questions and corresponding responses.

What happens next in the planning process? At the January 2005 open houses a proposed "corridor of opportunity" for the trail was presented to landowners, public officials, and the general public for their input. Utilizing the input received at the meetings and the criteria for placing the trail--geologic features, existing trail, availability of public lands, and opportunities for aesthetic, educational, and recreational experiences--we have begun to identify possible route options for the trail within that corridor. This will take time. Landowners that did not attend the open houses may be contacted to talk about the possibility of hosting the trail on their property. We have also begun writing a Trailway Plan and Environmental Assessment that will incorporate comments we received during the open houses and discuss the environmental and sociological impacts which may result from the trail. We plan to have copies of a draft version of this document available for the next series of open house meetings, which will be held in the spring of 2006. The purpose of the second series of open house meetings is to obtain input regarding the possible route options. In response to several comments received during the first round of meetings, we will also include an informational presentation and question and answer period. After this series of meetings, the planning process will conclude.

The partners involved in the Ice Age National Scenic Trail recognize that its completion will take a very long time since all participation in this project is voluntary. It will not be finished in the next year or in the next several years. It will happen slowly as landowners voluntarily give permission for the trail or sell lands or easements for the trail. It may take 10, 20, or more years to complete the trail. Until a protected trail route is established, it may be temporarily routed along road right-of-ways and on areas where public access for hiking is less than permanent.

In the meantime, we invite you to explore and enjoy the Ice Age National Scenic Trail as it currently exists in Marathon County. This segment of the trail has the potential to be one of the best. If you would like to see trail builders in action, on July 14-17, 2005, a Mobile Skills Crew (MSC) trail rehabilitation project will take place at Dells of the Eau Claire County Park. This 3-day event is being sponsored by the Ice Age Park and Trail Foundation's Marathon County Chapter. On Saturday, August 13, 2005, there will be a follow-up hike for the public to showcase the work done by the MSC on this 2.5 mile segment. We welcome all of you who wish to attend. Please see the enclosed flyer for more information.

I hope this information is useful and answers many of your questions. If you would still like to comment, please send letters to us, the National Park Service, here in Madison.

Sincerely,

Pamela J. Schuler
Manager, Ice Age National Scenic Trail

PJS:kk

Enclosures 2

# Answers to Questions and Comments about the Ice Age National Scenic Trail in Marathon County

## Planning

**1. How do we determine where the trail will be located?**

There are a number of factors that help us identify at least a general location for the Ice Age National Scenic Trail (NST). The first consideration is proximity to the terminal moraines and other glacial features left by the last advance of continental glaciers. While the last great glacial advance covered most of North America approximately 10-16,000 years ago, nowhere are there better examples of continental glaciations than in the State of Wisconsin. The primary purpose of the Ice Age NST is to protect and interpret these features--moraines, kames, kettle ponds, outwash plains, erratics, melt-water channels, and more--as well as provide a footpath to explore this unique landscape. Throughout the state, the landmark feature that the Ice Age NST generally follows is the moraines--the large hills and ridges of glacial till dumped over time by the advancing and receding mile-high sheet of ice. The moraines in Marathon County are aligned in a north-south direction and are located in the far eastern portion of the county.

Other factors that help determine location are significant cultural or biological resources that the glacier influenced, existing trail, linkage to public lands and towns for support facilities and interpretive opportunities, provision for a varied and scenic hiking experience, and reasonable directness of route. The Ice Age NST has existed in Marathon County since the early 1970s. Today there are 13 miles of trail that wind from the Ringle Area to the Dells of the Eau Claire County Park. There are also two county parks--Dells of the Eau Claire and Mission Lake--that lie on the moraines, one north and one south of the Village of Hatley and State Highway 29.

Since the Ice Age NST is a statewide trail that spans 30 counties, another factor that influences the placement of the trail are existing trail segments and approved Ice Age NST corridor plans in adjacent counties. To Marathon County's northeast, Langlade County has 54.5 miles of existing Ice Age NST, the southern terminus of which is Polar. On Marathon County's southern border, the Corridor Planning Process for Portage and Waupaca Counties was completed in the late 1990s. That process identified a corridor for the trail in those counties that would enter Marathon County on its far southeastern corner.

Once all of the significant geological, biological, cultural features as well as the public lands and existing features are mapped, a wide corridor, approximately 3-5 miles in width, is then wrapped around them. This corridor is an opportunity zone within which the trail can be established. The corridor is intentionally designed wide enough to allow flexibility in working with landowners to site the trail. It also defines the area where state or federal dollars can be used to purchase lands or provide grants to others to purchase land for the trail. The corridor itself has no legal standing; it is not a recorded instrument. It simply defines the geographic limits of the National Park Service (NPS), Wisconsin Department of Natural Resources (WDNR), and Ice Age Park and Trail Foundation's (IAPTF) involvement with the project. Since all participation in the Ice Age NST project is voluntary, ultimately it is the landowner that determines where the actual trail will be located.

**2. Why must the trail be continuous?**

The law which created the Ice Age NST in 1980 (Public Law 96-370) calls for the development of "a trail of approximately one thousand miles extending from Door County, Wisconsin to Interstate Park in Saint Croix County, Wisconsin, generally following the route described in "On the Trail on the Ice

Age – A Hiker's and Biker's Guide to Wisconsin's National Scientific Reserve and Trail." Discontinuous, isolated segments of the trail would fail to meet the legislative intent set by Congress.

## Uses

**3. What kinds of uses will be allowed on the trail?**
The primary uses of the Ice Age NST in Marathon County will be hiking, backpacking, snowshoeing, and where designated, cross country skiing. In general, horses, bikes, and snowmobiles are not allowed on the trail except for those sections that follow State Recreational Trails such as the Mountain-Bay, Military Ridge, Ahnapee, and Tuscobia. ATVs are never allowed. Occasional travel on or across the trail with motorized vehicles by the landowner or manager for the purpose of managing and using their land is permitted. If necessary, various structures such as stiles, gates, or fences can be strategically placed along the trail to discourage undesirable uses from occurring.

**4. How does hunting affect use of the trail?**
Hunting is permitted on many of the publicly-owned lands where segments of the trail exist. On most of these lands, the Ice Age NST is closed during gun deer season. Segments of the trail on privately-owned land are open to hunting only by permission of the landowner.

**5. Can county highways be used for part of the trail?**
The Ice Age NST is meant to be a continuous overland (off-road) trail. This does not preclude the use of short sections of lightly-used town or county roads (usually less than one mile) or bridges when necessary in order to cross rivers, lakes, interstate highways, dams, etc. Where segments of existing Ice Age NST are presently routed on public roads, they cannot be designated as the official route, but rather as temporary road connectors. Typically, when the trail follows roads it is to provide hikers with a designated route between completed segments of the trail. When this occurs, the road's right-of-way should be wide enough for the trail to be established safely beyond the shoulder and/or drainage ditch. Locating the trail within a public road right-of-way should be kept to a minimum so that the trail user is not continuously exposed to motor vehicle traffic.

**6. Will remote portions of the trail get much use?**
It is difficult to predict the level of use for the Ice Age NST through Marathon County. Based on patterns of use of other long-distance trails, segments located near populated areas will receive more use than those in remote areas. Some trail users prefer the experience afforded by more remote trail segments.

## Trail Building and Maintenance

**7. Who constructs and maintains the trail?**
While the Ice Age NST is a cooperative effort involving many public agencies and private organizations, the primary builders and maintainers of the trail are the volunteers organized by the IAPTF. IAPTF volunteers have built and continue to maintain nearly 600 miles of Ice Age NST now open for public use statewide, including the 13 miles that exist in Marathon County. Volunteers are organized into chapters that are responsible for various segments of trail. Once a trail segment is constructed, chapters have scheduled work days to keep it cleared and signed, and structures in good repair. They also monitor the trail for litter, safety, and misuse. In addition to the volunteers, the IAPTF has a Mobile Skills Crew, a statewide program whose purpose is to train volunteers to build high quality trail to a sustainable standard and provide the user with a positive experience. Other sponsored programs such as the Wisconsin Conservation Corp, the Sprite program, and county youth conservation corps have also constructed and rehabilitated many miles of trail.

**8. How do you prevent the trail surface from becoming a muddy mess with erosion causing it to become "braided?"**

Development of the trail varies depending on the terrain through which it passes. As long as the trail is on fairly level ground and stable soil, it is typically easy to maintain. However, once the trail begins to climb or descend, the stability of the trail tread becomes a factor. The best way to prevent erosion is to employ high-quality construction techniques from the start. The Mobile Skills Crew holds workshops for volunteers to train them how to correctly engineer (or design) a trail. For trail construction and maintenance standards, including "plumbing" (controlling water on the trail), they use the Ice Age NST Handbook for Trail Design, Construction and Maintenance. This handbook provides detailed information about trail structures that are necessary for safe passage over wet areas and topographical or human barriers.

**9. How will you site support facilities such as overnight camping, bathrooms, and water for the trail?**

Support facilities for the trail are frequently part of an existing facility. In the early stages of the Corridor Planning Process, public lands and towns are identified that could provide trailheads/parking lots, overnight accommodations, food, bathrooms, and water for users of the trail. The standards for their placement and spacing are outlined in the Ice Age NST Handbook for Trail Design, Construction and Maintenance. For example, according to the standards, a trailhead/parking lot should be provided every 5 miles if use is high, and every 8 miles when actual use is low. Every trail segment is different and decisions will be site specific. If additional support facilities are needed beside what exists, Ice Age NST representatives will work with the county, towns, and property owners to find a solution that is amenable to all concerned. Regarding Marathon County, there are numerous public lands and towns within the proposed corridor that will probably be able to meet most of the Ice Age NST's needs.

**10. Will trail users trespass on my property? Will I lose my privacy?**

The Ice Age NST in Marathon County would be clearly marked advising the recreational user to stay on the trail. Based on patterns of use on Ice Age NST segments in other areas of the state and on other long-distance trails, such as the Appalachian Trail, hikers respect the use agreements with the local landowners. Hikers, as a group, tend to have a strong land ethic and respect the rights of others. Should law enforcement be needed, it is provided by the county sheriff's department and others that have legal jurisdiction over areas through which the trail passes. Landowners who voluntarily agree to allow the trail on their property will be fully involved in determining exactly where the trail crosses their land, so they can ensure that they are comfortable with the distance between their residence (or other buildings) and the trail.

**11. Are landowners legally liable for injuries to trail users?**

If you sell your land to the Wisconsin Department of Natural Resources or Ice Age Park and Trail Foundation for Ice Age NST purposes, the liability rests with them. If you do not sell any property but rather grant permission for the trail to cross your land, you will be covered by the Wisconsin liability law (Wisconsin Statues 895.52). This recreational liability law gives considerable protection from liability. Landowners who receive less than $2,000 per year for allowing recreational use of their land would be liable only for injuries they willfully cause with the intent to harm recreational users. Landowners are not required to keep their property safe for recreational users. The Wisconsin Supreme Court has upheld the validity of this law, citing the Legislature's clear intent to encourage private landowners to open their lands to recreational use by the public.

**12. If an indigent hiker were to be injured on the trail, would the local township be liable for any unpaid emergency medical costs?**

According to the Wisconsin Towns Association, a statewide membership group created to protect the interests of the state's 1,264 towns and improve town government, township liability would be the same as that associated with the provision of emergency services to other indigent individuals. Marathon County Department of Social Services, charged with administration of general and emergency medical relief for the county, advised that if an injured person were eligible for Medicaid, emergency medical charges would be reimbursed through the individual's county of residence. If an individual does not have insurance or does not qualify for Medicaid, there may be no way for the county to recover costs, just as with any other indigent person.

As part of a 2-year study initiated in 1999 [State Parks and their Gateway Communities: Development and Recreation Planning Issues in Wisconsin (G3773) PR-466 2002], the following describes the majority of state trail users that were interviewed. Their average age was 45, with 75% reporting that they were married. They were employed full-time in occupations categorized as "managerial/professional" or "technical/sales/administration," with 15% being retired. More than 90% of those interviewed had high school diplomas and almost 70% had post-secondary degrees. This suggests that most trail users are financially stable and responsible.

**13. Must I sell my land for the Ice Age NST? I don't want the government to take my property for the trail.**

No. All property transactions relating to the Ice Age NST are strictly on a willing seller basis. There is no obligation for any private landowner to either sell or donate land for the Ice Age NST or to permit the trail to cross their lands. Land purchases funded with assistance from the State Stewardship Program are based upon appraisals of fair market value made by independent appraisers. Conservation easements or donations of land to IAPTF or the government for the trail are fully deductible for both federal and state income tax purposes.

**14. What are contractual obligations in relation to sale of Managed Forest Law/Forest Crop Law properties?**

The Wisconsin Managed Forest Law replaced the Forest Crop Law in 1986. Contract lengths vary and can run for periods of 25 or 50 years depending on which law and the year lands were entered. These lands can be sold and the contract transferred if it meets the eligibility requirements and the new owner completes and files a Notice of Conveyance and Petition for Transfer Form. Typically, the landowner is liable to pay a penalty for early withdrawal and/or failure to follow the terms of the contract. However, if the WDNR buys the land, the landowner is not subject to any penalty. Landowners should contact the WDNR forester for specific details about the sale or transfer of these properties.

**15. If I allow a Conservation Easement on my property, will I still be responsible for payment of taxes on it?**

Yes. When a conservation easement is purchased for the trail, the landowner still owns the land and therefore pays the taxes. An easement does not transfer ownership of the land, but gives to the purchaser of the easement certain specified rights for use or management of that portion of the property (as agreed upon between the two parties), such as the right of public passage over the property for hiking within the boundaries of the easement area. In addition, fee simple purchase or outright purchase of an agreed upon parcel of land is an option for landowners who no longer want to own their land or pay taxes.


**Victoria A. Doud**
PRESIDENT

October 29, 2004

Pamela J. Schuler
National Park Service
Ice Age Scenic Trails
700 Rayovac Drive, Suite 100
Madison, Wisconsin

Dear Ms. Schuler,

The Lac du Flambeau Band of Lake Superior Chippewa Indians welcomes the opportunity to be informed and participate in the planning of the Ice Age National Scenic Trail in Marathon and Langlade Counties. It is somewhat confusing in your choice of words requesting informal consultation with the Band to fulfill the National Park Service's responsibility under Section 106 of the National Historic Preservation Act. How is informal consultation defined and how will informal consultation influence how the trail is developed?

I also want to take the opportunity to inform the National Park Service the Lac du Flambeau Band has reserved hunting, fishing and gathering rights in the ceded territory located in Marathon and Langlade Counties. The Band will be very interested and determined to understand how these trails may impact our ability to exercise the treaty rights. The Band is particularly interested in whitetail deer, black bear, wild turkey, waterfowl, walleye, muskellunge, wild rice, white birch, cedar, sugar maple, sage and other medicinal plants. It is also important to contact Mr. Jim Schlender, Executive Administrator of the Great Lakes Indian Fish and Wildlife Commission at PO Box 9, Odanah, Wisconsin 54891. The Great Lakes Indian Fish Wildlife Commission will be able to provide more information on Chippewa Treaty Rights and a comprehensive list of species that the Ice Age National Scenic Trail may potentially affect.

Clearly it is understood the federal government and its agencies through Treaties and Executive Orders have a trust responsibility to federally recognized Tribes and subsequently a government-to-government relationship exists. Because of this special relationship, Treaty Rights along with culturally significant sites must be protected and preserved.

Please note Mr. Henry St. Germaine is no longer the Tribal President of the Band. Address all future correspondence to Ms. Victoria Doud, President, PO Box 67, Lac du Flambeau, Wisconsin 54538 (715-588-4206).

Sincerely,

Victoria Doud
President

**Lac du Flambeau Band**
**of Lake Superior Chippewa Indians**
P.O. Box 67 - Lac du Flambeau, Wisconsin 54538 • (715) 588-4205 • FAX (715) 588-2734

# United States Department of the Interior

NATIONAL PARK SERVICE
Ice Age and North Country
National Scenic Trails
700 Rayovac Drive, Suite 100
Madison, Wisconsin 53711

IN REPLY REFER TO:

D18(IATR)
Marathon/Langlade Counties

December 8, 2004

Great Lakes Indian Fish and Wildlife Commission
Mr. Neal Kmiecik
P.O. Box 9
Odana, Wisconsin 54891

Dear Mr. Kmiecik:

Recently we began a corridor planning process for the Ice Age National Scenic Trail (NST) in Marathon and Langlade Counties, Wisconsin. As part of this process we contacted the Lac du Flambeau Band of Lake Superior Chippewa Indians. Tribal President Victoria Doud requested that we contact your office for additional information on Chippewa Treaty Rights and a comprehensive list of species that may be affected potentially by the trail.

The goal of the planning process in Marathon and Langlade Counties is to identify a corridor within which the trail will be located. The purpose of this process is to identify possible route locations for the trail, define a boundary within which Federal and State monies may be used to acquire lands for the trail, and fulfill Federal and State environmental compliance requirements. The National Park Service is leading this effort in cooperation with our two partners in the Ice Ace National Scenic Trail (NST)--the Wisconsin Department of Natural Resources and the Ice Age Park and Trail Foundation. The proposed corridor is approximately 51 miles long and 1 to 5 miles in width. Within this "corridor of opportunity," the partners will work to secure lands, generally 200 to 1,000 feet wide, on which to establish the trail. The corridor transects the eastern half of Marathon County from south to north crossing into Langlade County in a southwest to northeast direction before joining an existing section of the Ice Age NST near Mueller Lake Town Park.

The Marathon County portion of the trail will generally follow the undulating terrain of the Hancock, Almond, and Elderon moraines deposited 10-16,000 years ago. The Langlade County portion of the trail will generally follow the Hancock and Almond moraines. The proposed corridor already contains approximately 10 miles of existing Ice Age NST that takes the hiker north from the Mountain Bay State Trail near the Ringle area through the Dells of the Eau Claire County Park. The partnership is working to connect this existing trail segment to Portage County and to the existing segment in Langlade County.

The corridor passes through or near the communities of Galloway, Bevent, Elderon, Ringle, Hatley, and Antigo. Collectively, these areas provide support facilities such as trailheads, parking, water, lodging, and phones.

Glacial remnants include the three recessional moraines which are situated in the far eastern part of the county. Other glacial elements include boulder fields, kames, lakes, potholes, and kettle ponds. The Plover River, the county's largest trout stream, also runs through the proposed corridor. The corridor contains numerous public lands and has the potential to link state fisheries areas, three county parks, including Dells of the Eau Claire County Park and State Natural Area, and several county forest units.

Enclosed are maps of the proposed corridor and existing trail that fall within the following legal description:

Marathon County:

| | |
|---|---|
| Franzen | T26N R10E, Sections 4-9, 15-17, 20-23, 25-28, 34-36 |
| Bevent | T26N R9E, Section 1 |
| Reid | T27N R9E, Sections 1-2, 11-14, 23-25, 35-36 |
| Elderon | T27N R10E, Sections 6-7, 18-19, 30-32 |
| Ringle | T28N R9E, Sections 1-2, 11-14, 22-27, 35-36 |
| Norrie | T28N R10E, Sections 6-7, 18-19, 30-31 |
| Easton | T29N R9E, Sections 12-13, 22-26, 35-36 |
| Plover | T29N R10E, Sections 1-4, 7-11, 15-19, 30-31 |
| Harrison | T30N R10E, Sections 24-26, 34-36 |

Langlade County:

| | |
|---|---|
| Rolling | T30N R11E, Sections 1-3, 8-17, 19-22, 27-33 |
| Norwood | T30N R12E, Sections 3-10, 17-18 |
| Antigo | T31N R11E, Sections 12-13, 23-27, 33-36 |
| Polar | T31N R12E, Sections 7-10, 15-22, 27-34 |

Statewide the scope of this project consists of developing a hiking trail that generally follows the terminal and recessional moraines and other significant glacial features left by the last glacial advance some 10,000 years ago. Portions of the trail may be developed for cross-county skiing; however, uses such as horseback riding or mountain bike riding will not be allowed. The trail will consist primarily of a brushed footpath that is 2-4 feet in width. In sloping areas, side-hill construction will be utilized. Sapling size trees and other understory brush will be cleared to a 4-foot width and 8-foot height. Where it is necessary to cross wetland areas, small boardwalks and bridges will be constructed. The standards that guide the development of the trail are contained in the "Ice Age National Scenic Trail Comprehensive Plan for Management and Use," and "Ice Age National Scenic Trail, A Handbook for Trail Design, Construction, and Maintenance."

We appreciate your cooperation in this planning process and any input you can provide within your area of expertise and jurisdiction. If you have questions concerning the project, please contact Pam Schuler, Ice Age NST Manager, at 608-441-5610.

Sincerely,

Mary Tano

Mary Tano
Trail Planner, Ice Age NST

MT:kk

Enclosures 2

# GREAT LAKES INDIAN FISH & WILDLIFE COMMISSION

P. O. Box 9 • Odanah, WI 54861 • 715/682-6619 • FAX 715/682-9294

• MEMBER TRIBES •

| MICHIGAN | WISCONSIN | | MINNESOTA |
|---|---|---|---|
| Bay Mills Community | Bad River Band | Red Cliff Band | Fond du Lac Band |
| Keweenaw Bay Community | Lac Courte Oreilles Band | St. Croix Chippewa | Mille Lacs Band |
| Lac Vieux Desert Band | Lac du Flambeau Band | Sokaogon Chippewa | |



January 6, 2005

Ms. Mary Tano
Trail Planner, Ice Age NST
700 Rayovac Dr., Suite 100
Madison, WI 53711

Dear Ms. Tano:

Thank you for your letter of December 8, 2004 in which you describe the planning process for the Ice Age National Scenic Trail in Marathon and Langlade Counties, Wisconsin. The Voigt Intertribal Task Force (Task Force) of the Great Lakes Indian Fish and Wildlife Commission (Commission) has authorized the submission of these comments regarding the Ice Age National Scenic Trail, which have been prepared by Commission staff.

The Task Force points out that its comments are submitted from the ceded territory perspective. These comments are not intended to preclude comments by individual tribes pursuant to their sovereign prerogatives. The Task Force encourages the National Park Service to solicit comments from tribes which may be affected by this trail.

The member tribes of the Great Lakes Indian Fish and Wildlife Commission enjoy retained usufructory rights within the territories ceded to the U.S. government in the treaties of 1837 and 1842. Hunting, fishing and gathering rights were retained in these two treaties in order to preserve the life way and cultural heritage of the Ojibwe Indians. During the exercise of these treaty rights literally hundreds of species of plant and animal are used. The proposed trail corridor passes through these ceded territories and thus may impact the exercise of these treaty rights.

The Federal government has a unique trust responsibility to American Indian tribes, including the member tribes of the Commission. This trust responsibility has been recognized and acknowledged by various government agencies including the USDA Forest Service – Chequamegon-Nicolet National Forest and the National Park Service – Apostle Islands National Lakeshore. In the various planning documents prepared by these agencies, treaty rights have been preserved through the use of the phrase: "Nothing in this plan or its implementation is intended to modify, abrogate, or otherwise adversely affect tribal reserved or treaty-guaranteed rights". At the very minimum the tribes encourage the Ice Age National Scenic Trail plan to include the same language.

There may be opportunities for the tribes and Commission to work with the National Park Service – Ice Age Trail to enhance the exercise of treaty rights through ecosystem management

and the preservation of biodiversity. To this end I would like to request more information about the Ice Age Trail including the "Ice Age National Scenic Trail Comprehensive Plan for Management and Use" and "Ice Age National Scenic Trail, A Handbook for Trail Design, Constructions and Maintenance" and any other planning documents relating specifically to this trail.

Please do not hesitate to contact me if you wish to discuss these opportunities.

Sincerely,

Jonathan Gilbert Ph.D.
Wildlife Section Leader

cc James Schlender, Executive Administrator
James Zorn, Policy Analyst
Neil Kmiecik, Biological Services Director
Karen Danielsen, Ecologist

# APPENDIX G. Legislation and Statues

This assessment serves to:

A. Comply with all provisions regarding environmental considerations and public involvement required by NEPA and WEPA by carrying out an open, public planning process to determine the corridor for the trail, and to identify and address public issues and concerns.

B. Comply with consultation requirements for Section 106 of the National Historic Preservation Act and Section 7 of the Endangered Species Act.

C. Comply with Executive Order 11988 – Floodplain Management and Executive Order 11990 – Protection of Wetlands.

D. Provide information on the physical and social environment through which the trail passes for local trail clubs and the county to use as they plan the physical location, construction, and subsequent maintenance of the trail.

E. Foster public involvement in and support for development and management of the trail, including recognition of the trail by public and private land use planning groups.

F. Comply with required state designations and approvals:

1. The Natural Resources Board must approve land acquisition when an acquisition equals or exceeds $150,000 (NR 1.41(1)(a), Wisconsin Administrative Code).

2. Wisconsin State Statutes, Chapter 23.09 (2) d, gives the WDNR approval to acquire lands for the Ice Age Trail.

3. Wisconsin State Statutes, Chapter 23.09 (2) c, gives the WDNR approval to provide grants for the acquisition of lands for the Ice Age Trail, through the Stewardship Program.

4. Wisconsin State Statutes, Chapter 23.17, designates the Ice Age Trail, as provided for in 16 U.S.C. 1244(a)(10), plus the land adjacent to each side of that trail designated by the WDNR, as a State Scenic Trail, to be known as the "Ice Age Trail".

5. Wisconsin State Statutes, Chapter 23.293, allows the transfer of land to the WDNR for the Ice Age Trail, through State Ice Age Trail area dedication.

6. Wisconsin State Statutes, Chapter 23.915(4), requires that the Joint Finance Committee must review a land acquisition when a Stewardship grant equals or exceeds $250,000.

# APPENDIX H List of Works Consulted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Wisconsin's Ice Age Trail- A guide for Landowners. Prepared by Ice Age Trail Alliance, Inc. 1997.